FIG. 1

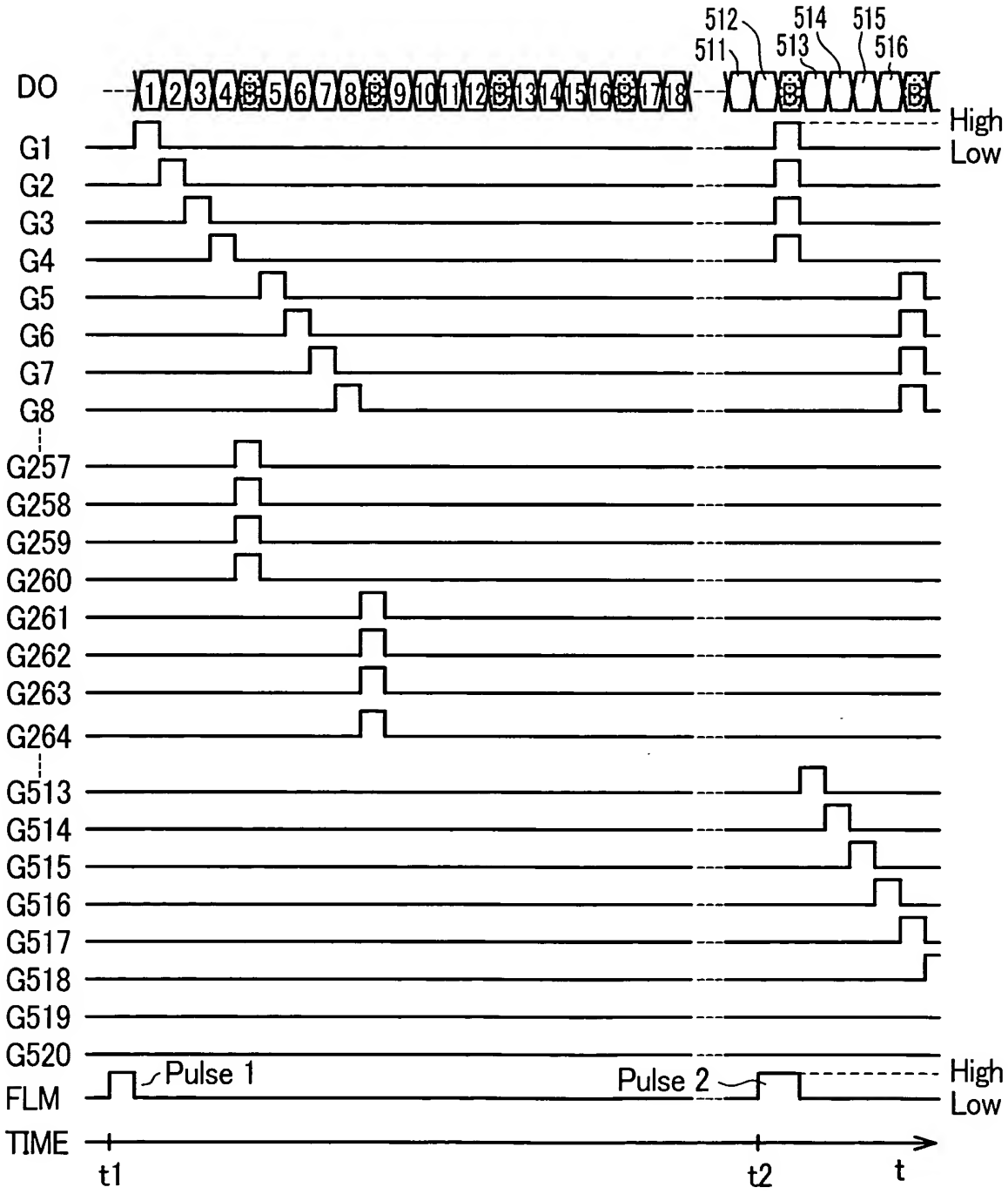

512
514
515
511
513
516
DO
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
High
Low
G1
G2
G3
G4
G5
G6
G7
G8
G257
G258
G259
G260
G261
G262
G263
G264
G513
G514
G515
G516
G517
G518
G519
G520
Pulse 1
Pulse 2
FLM
High
Low
TIME
t1
t2
t

FIG. 2

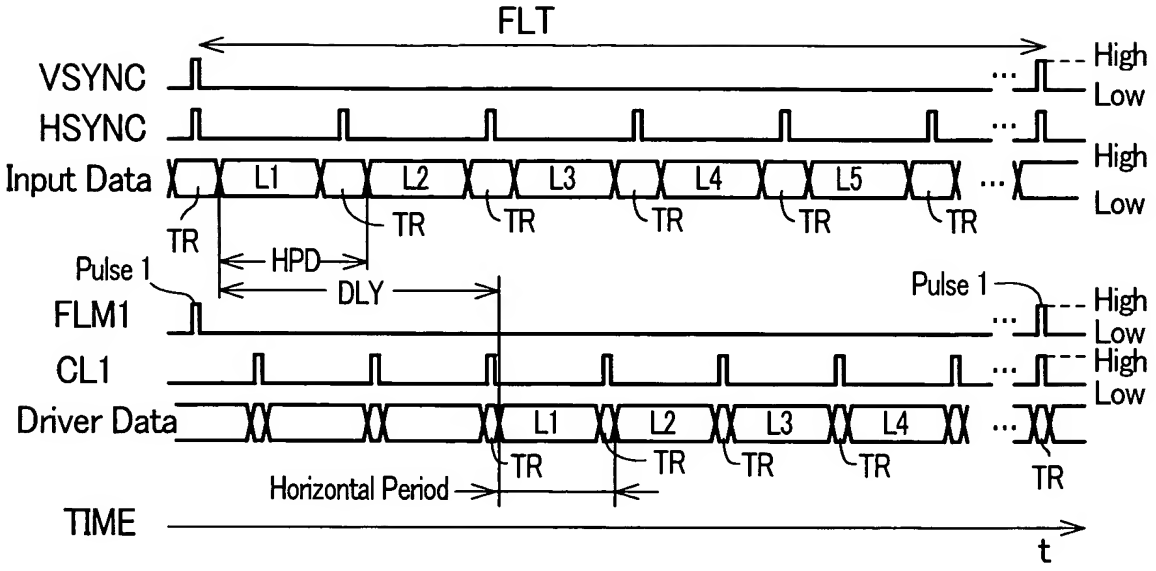

FLT
VSYNC
HSYNC
Input Data
L1
L2
L3
L4
L5
TR
HPD
Pulse 1
DLY
FLM1
CL1
Driver Data
Horizontal Period
TIME
t
High
Low

FIG. 3

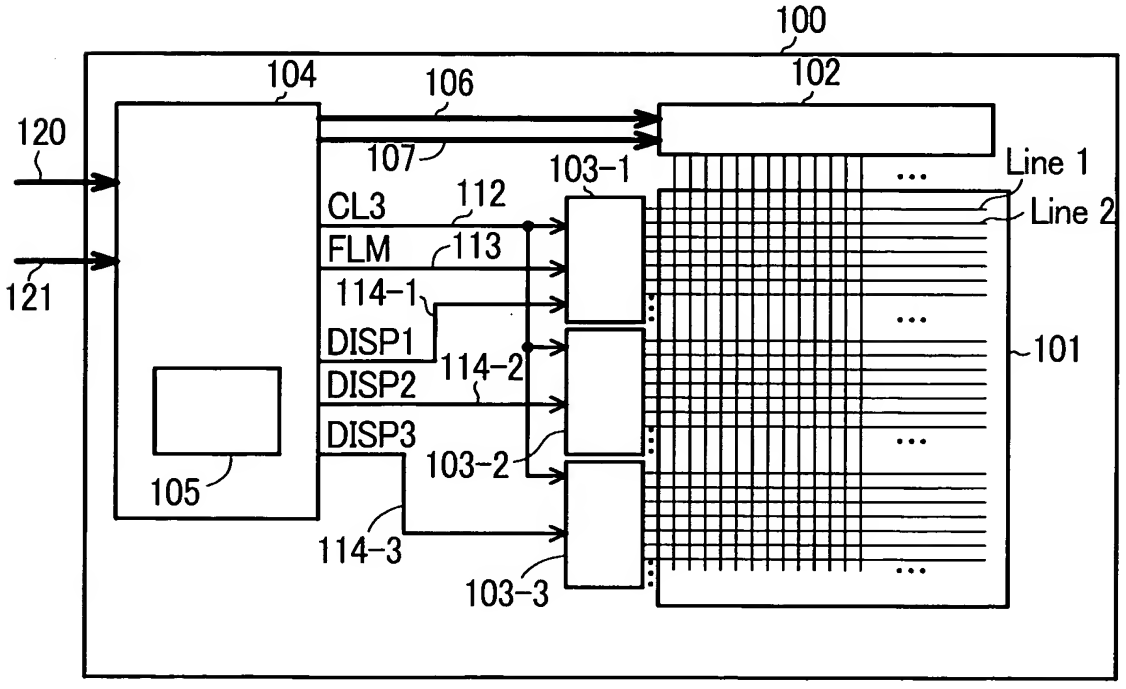

100
102
104
106
107
120
121
103-1
112
CL3
113
FLM
114-1
DISP1
114-2
DISP2
DISP3
103-2
114-3
103-3
105
Line 1
Line 2
101

FIG. 4

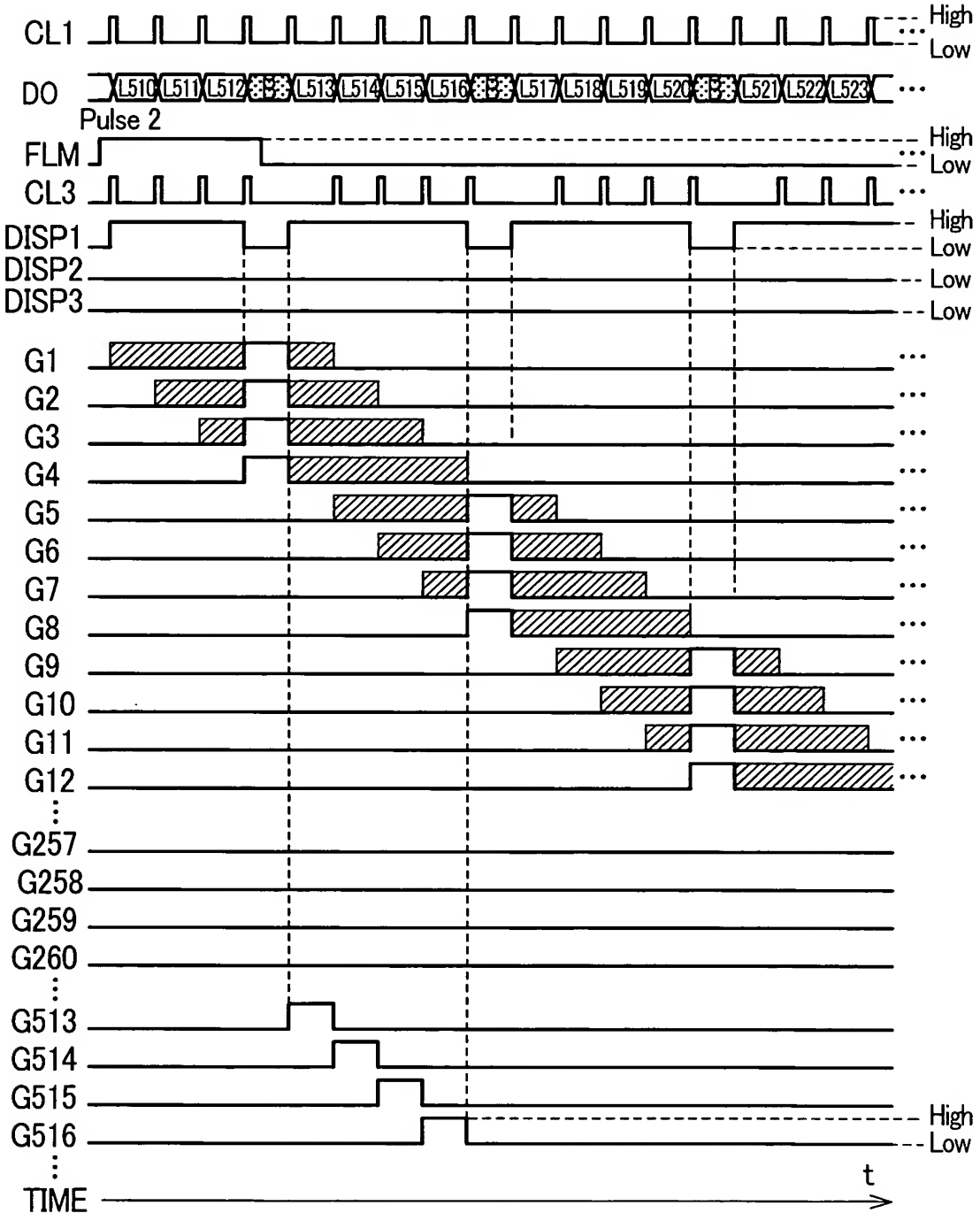

CL1
High
Low
DO
L510
L511
L512
L513
L514
L515
L516
L517
L518
L519
L520
L521
L522
L523
Pulse 2
FLM
High
Low
CL3
DISP1
High
Low
DISP2
Low
DISP3
Low
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
G11
G12
G257
G258
G259
G260
G513
G514
G515
G516
High
Low
t
TIME

FIG. 5

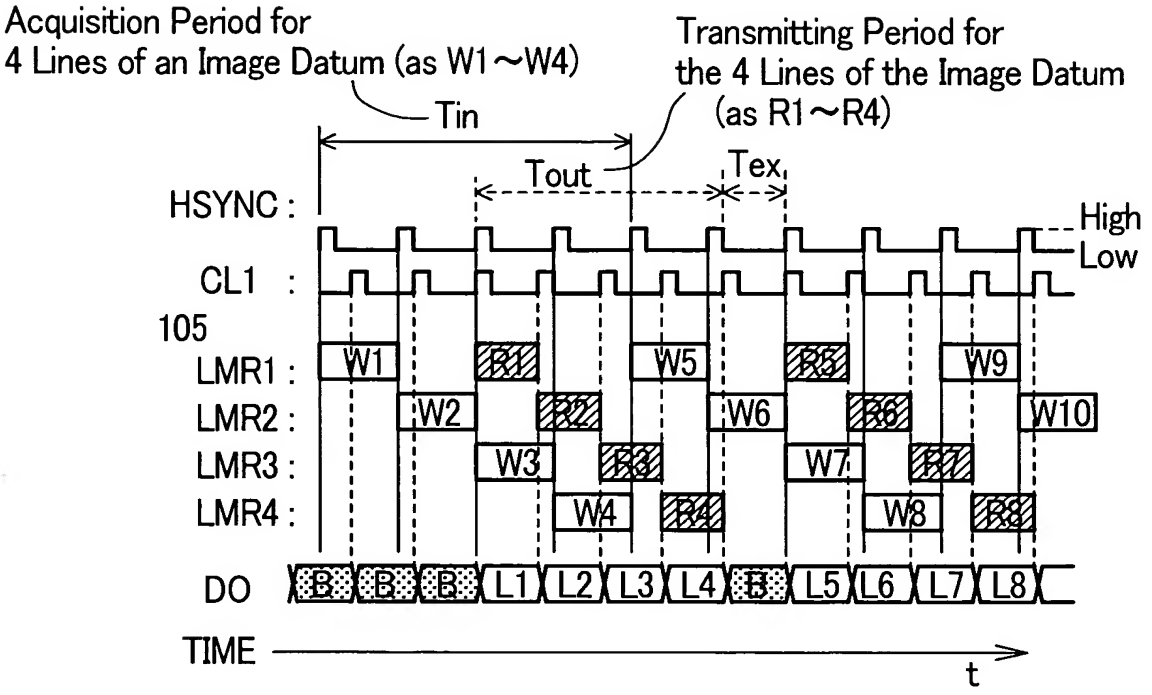

Acquisition Period for
4 Lines of an Image Datum (as W1～W4)
Transmitting Period for
the 4 Lines of the Image Datum
(as R1～R4)
Tin
Tout
Tex
HSYNC :
CL1 :
High
Low
105
LMR1 :
LMR2 :
LMR3 :
LMR4 :
W1
W2
W3
W4
R1
R2
R3
R4
W5
W6
W7
W8
R5
R6
R7
R8
W9
W10
DO
B
L1
L2
L3
L4
L5
L6
L7
L8
TIME
t

FIG. 6

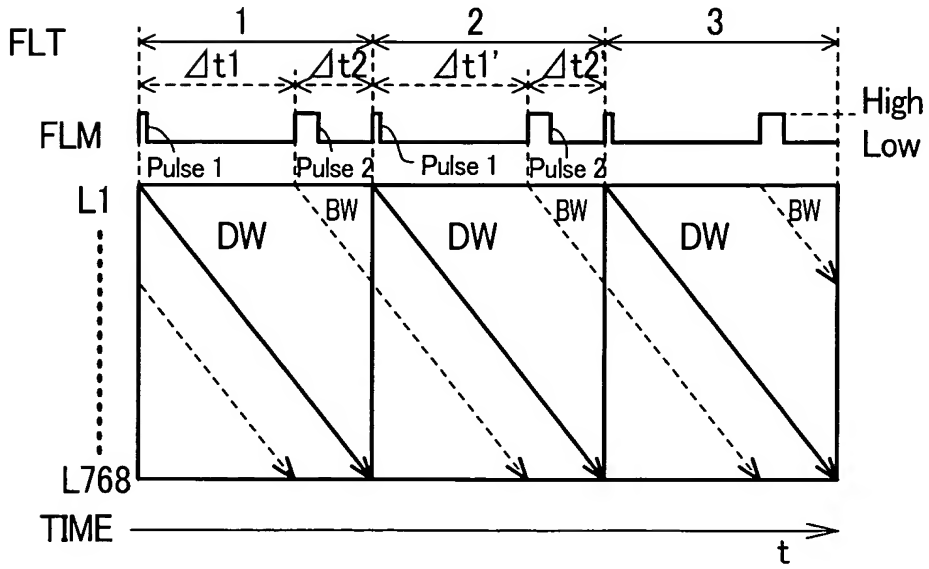

FLT
1
2
3
Δt1
Δt2
Δt1'
Δt2'
FLM
High
Low
Pulse 1
Pulse 2
Pulse 1
Pulse 2
L1
L768
DW
BW
DW
BW
DW
BW
TIME
t

FIG. 7

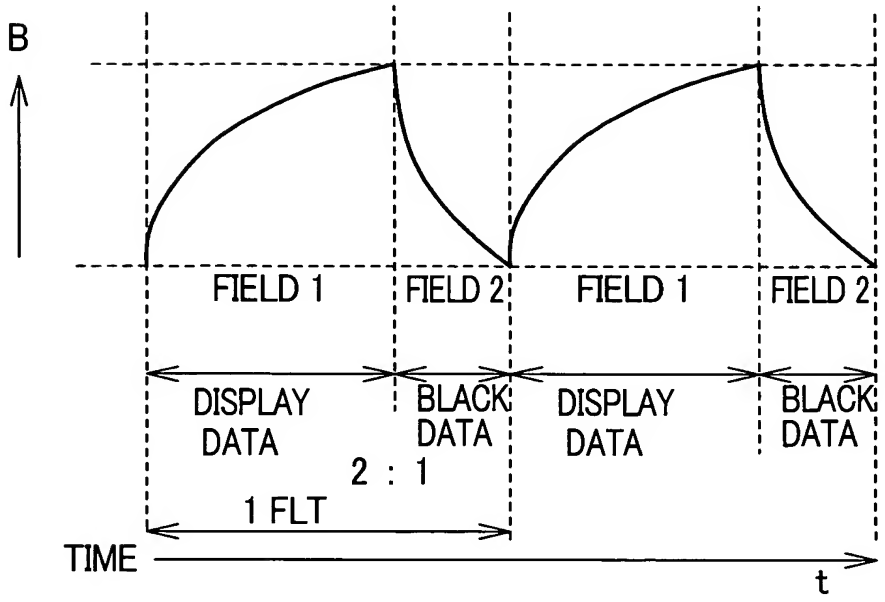

B
FIELD 1
FIELD 2
FIELD 1
FIELD 2
DISPLAY DATA
BLACK DATA
DISPLAY DATA
BLACK DATA
2 : 1
1 FLT
TIME
t

FIG. 8

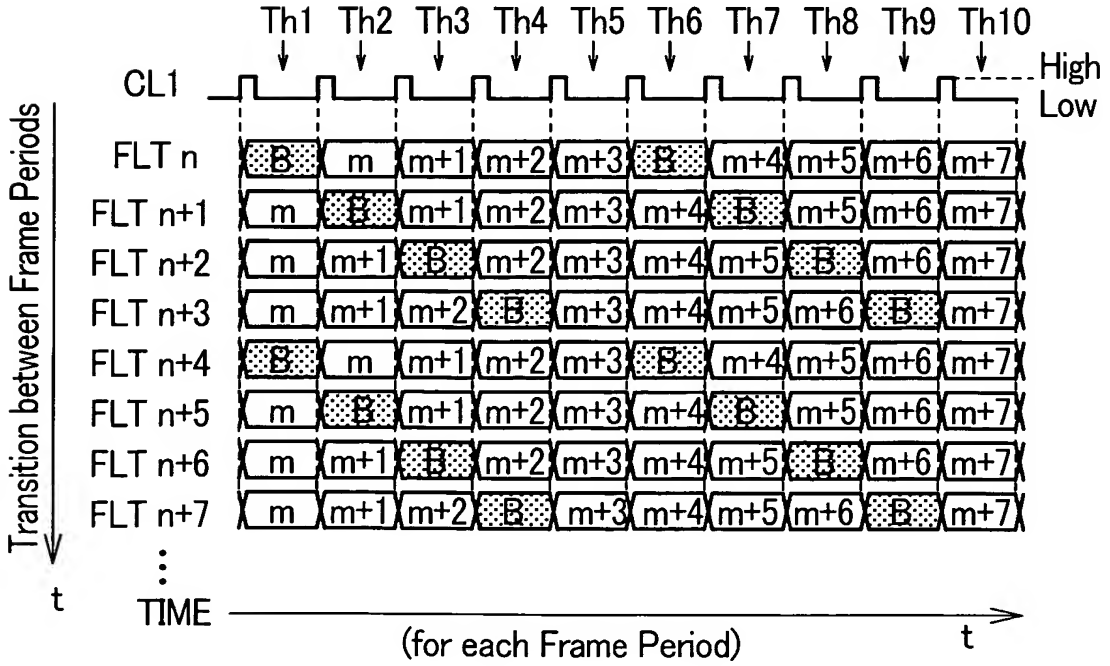

Th1 Th2 Th3 Th4 Th5 Th6 Th7 Th8 Th9 Th10
CL1
High
Low
Transition between Frame Periods
FLT n
FLT n+1
FLT n+2
FLT n+3
FLT n+4
FLT n+5
FLT n+6
FLT n+7
B
m
m+1
m+2
m+3
m+4
m+5
m+6
m+7
t
TIME
(for each Frame Period)
t

FIG. 9

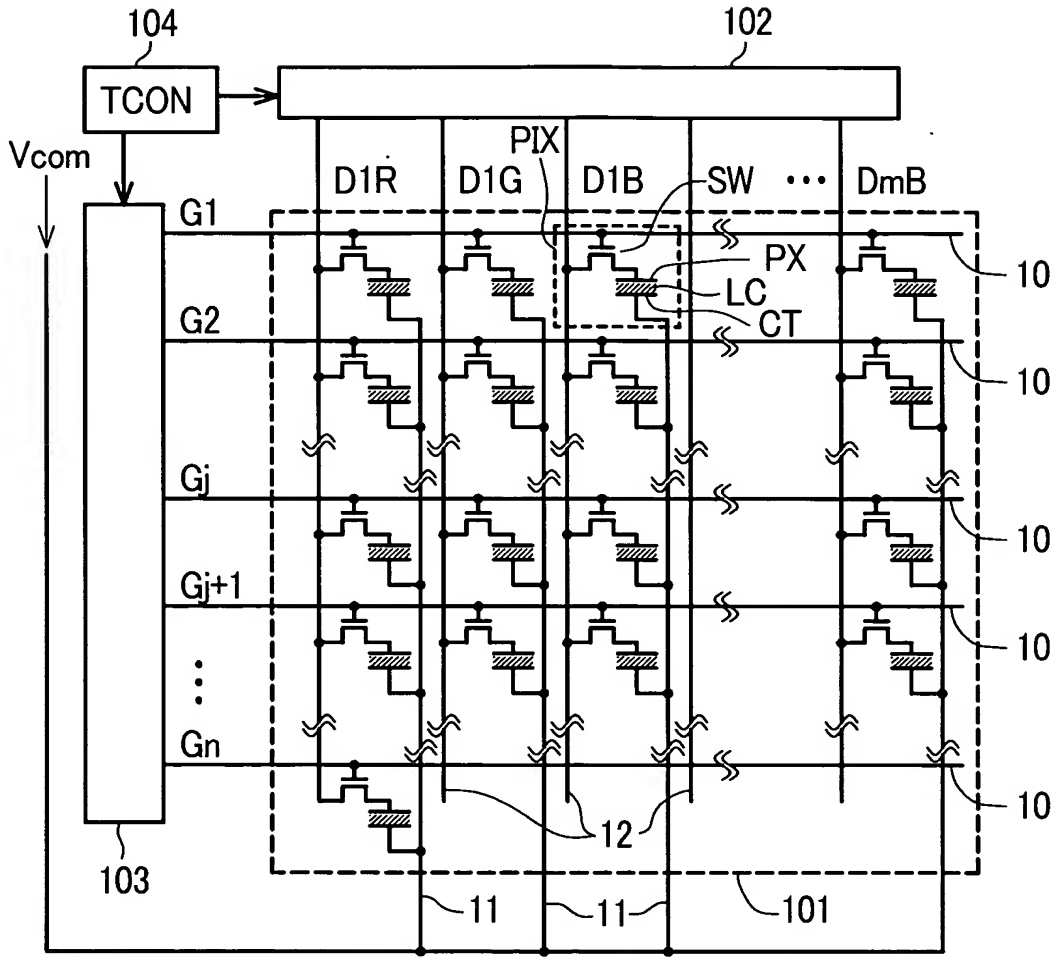

104
102
TCON
Vcom
PIX
D1R
D1G
D1B
SW
DmB
G1
G2
Gj
Gj+1
Gn
PX
LC
CT
10
12
11
101
103

FIG 10

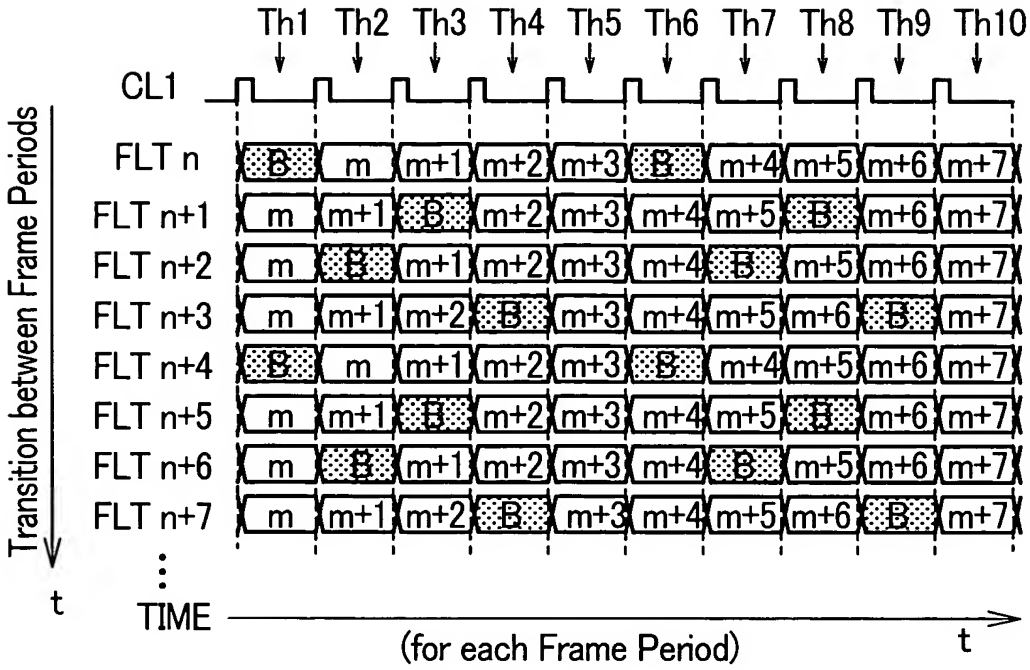

Th1 Th2 Th3 Th4 Th5 Th6 Th7 Th8 Th9 Th10
CL1
FLT n
FLT n+1
FLT n+2
FLT n+3
FLT n+4
FLT n+5
FLT n+6
FLT n+7
B
m
m+1
m+2
m+3
m+4
m+5
m+6
m+7
Transition between Frame Periods
t
TIME
(for each Frame Period)
t

FIG. 11

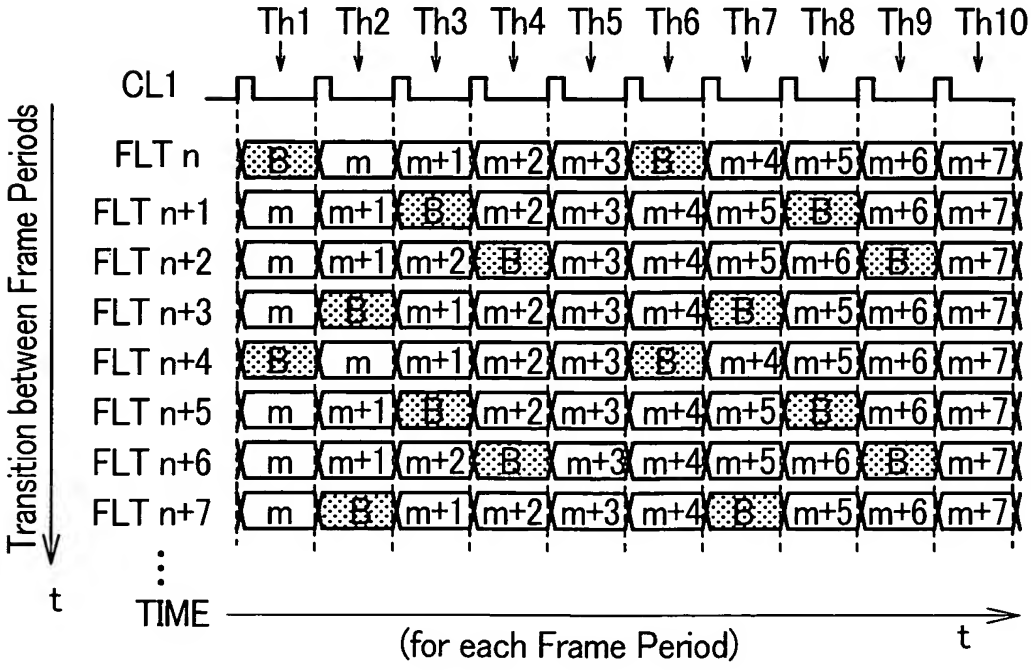

Th1 Th2 Th3 Th4 Th5 Th6 Th7 Th8 Th9 Th10
CL1
FLT n
FLT n+1
FLT n+2
FLT n+3
FLT n+4
FLT n+5
FLT n+6
FLT n+7
B
m
m+1
m+2
m+3
m+4
m+5
m+6
m+7
Transition between Frame Periods
t
TIME
(for each Frame Period)
t

FIG. 12

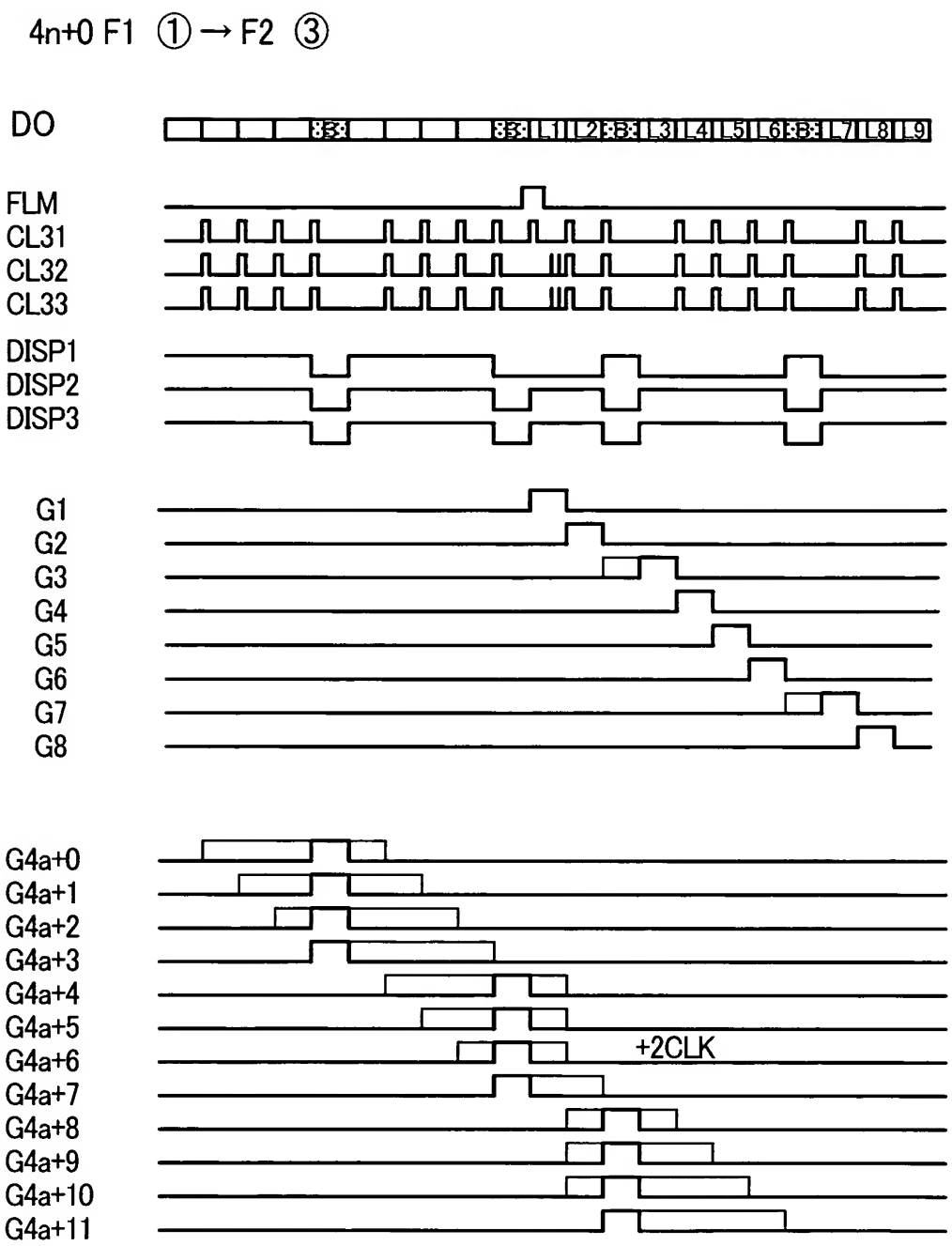

4n+0 F1 ① → F2 ③
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
+2CLK

FIG. 13

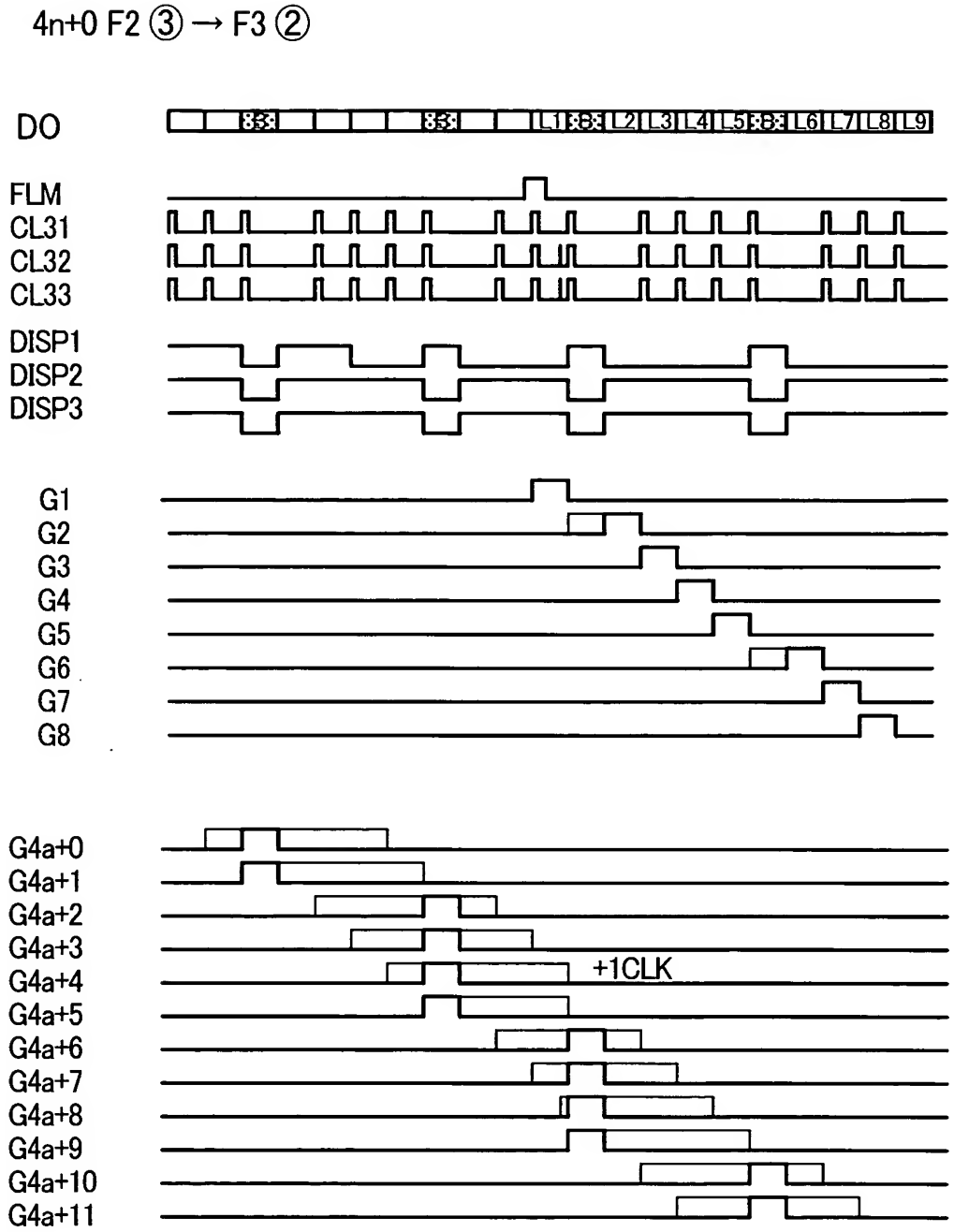

4n+0 F2 ③ → F3 ②
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
+1CLK

FIG. 14

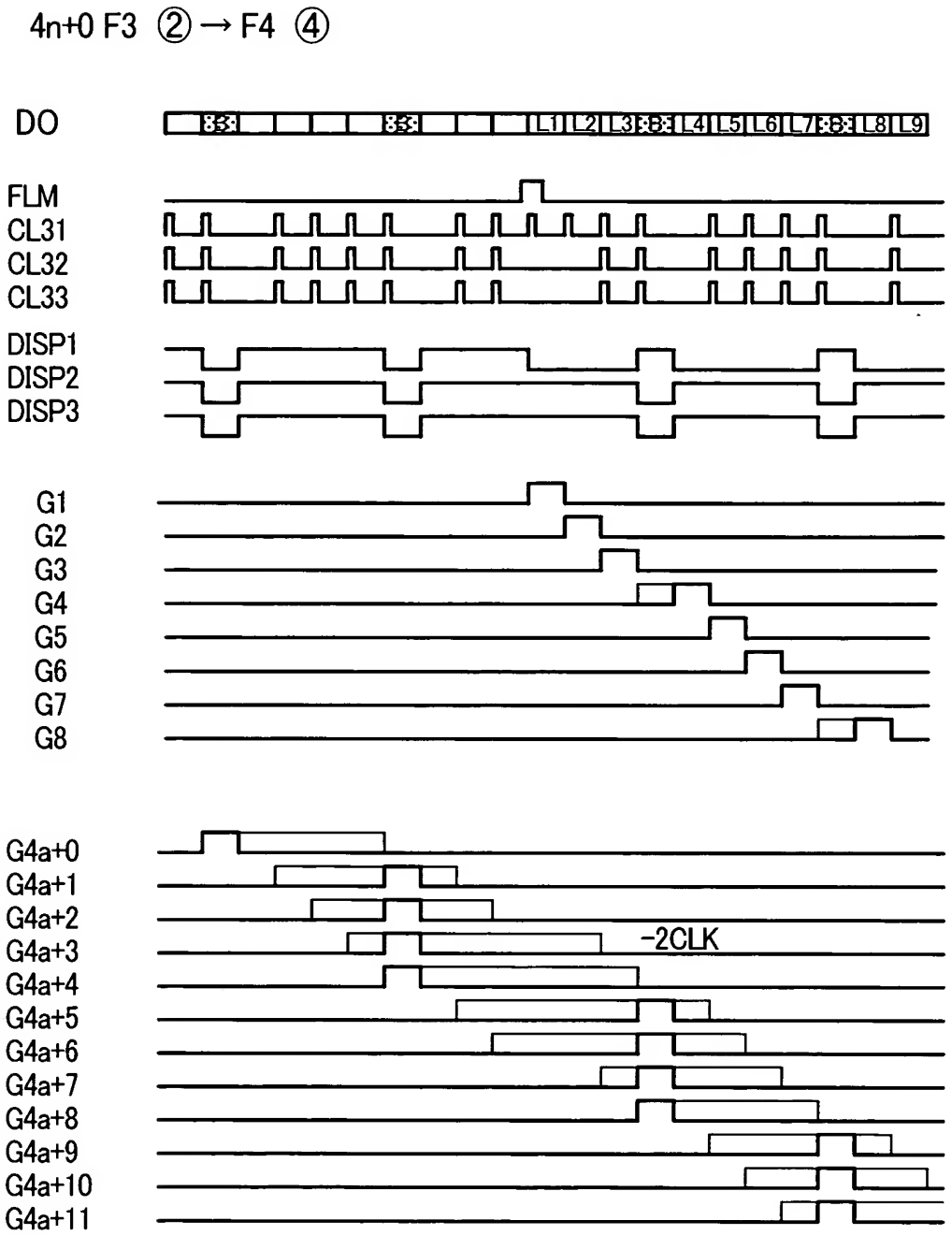

4n+0 F3 ② → F4 ④
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-2CLK

FIG. 15

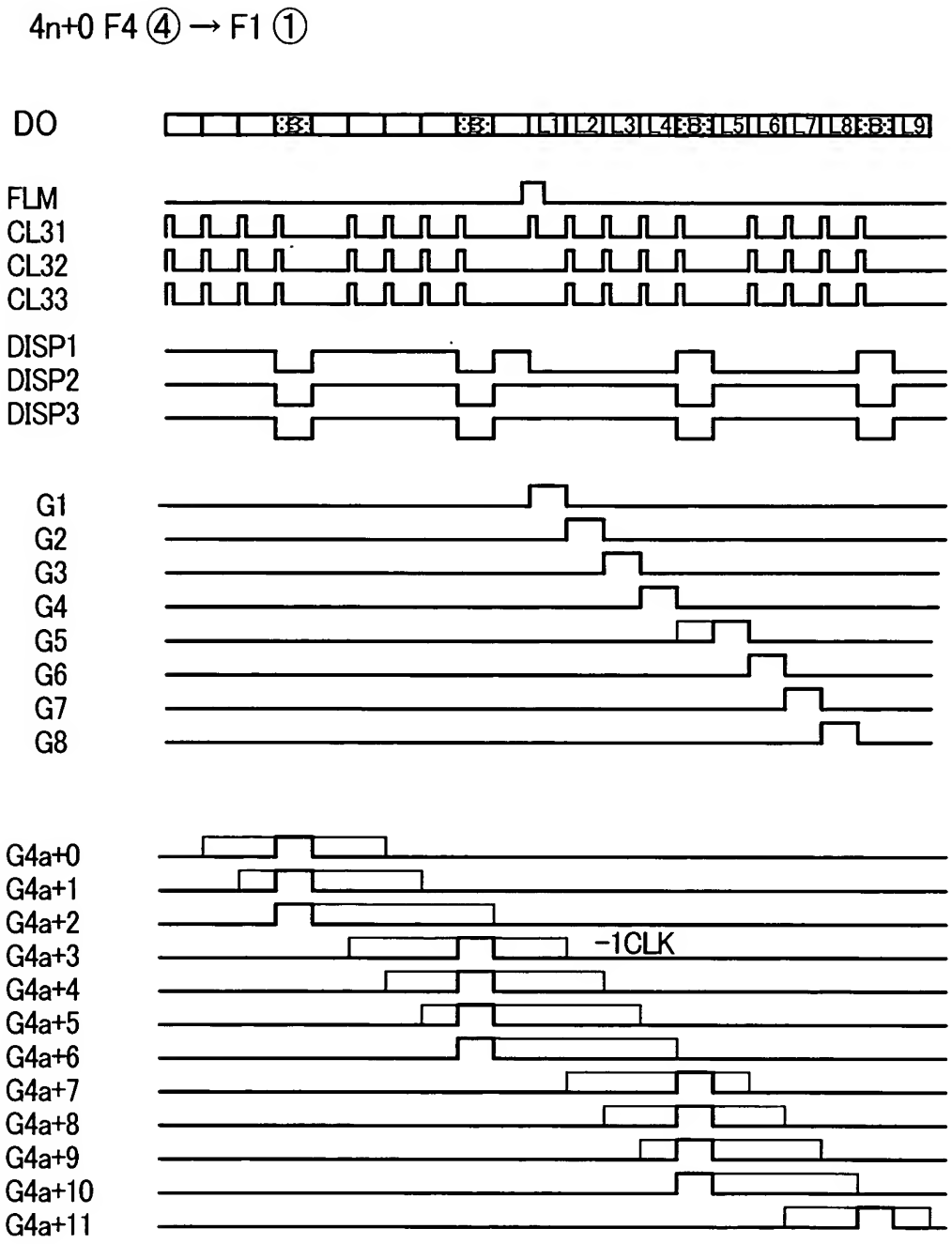

4n+0 F4 ④ → F1 ①
DO
L1 L2 L3 L4 L5 L6 L7 L8 L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-1CLK

FIG. 16

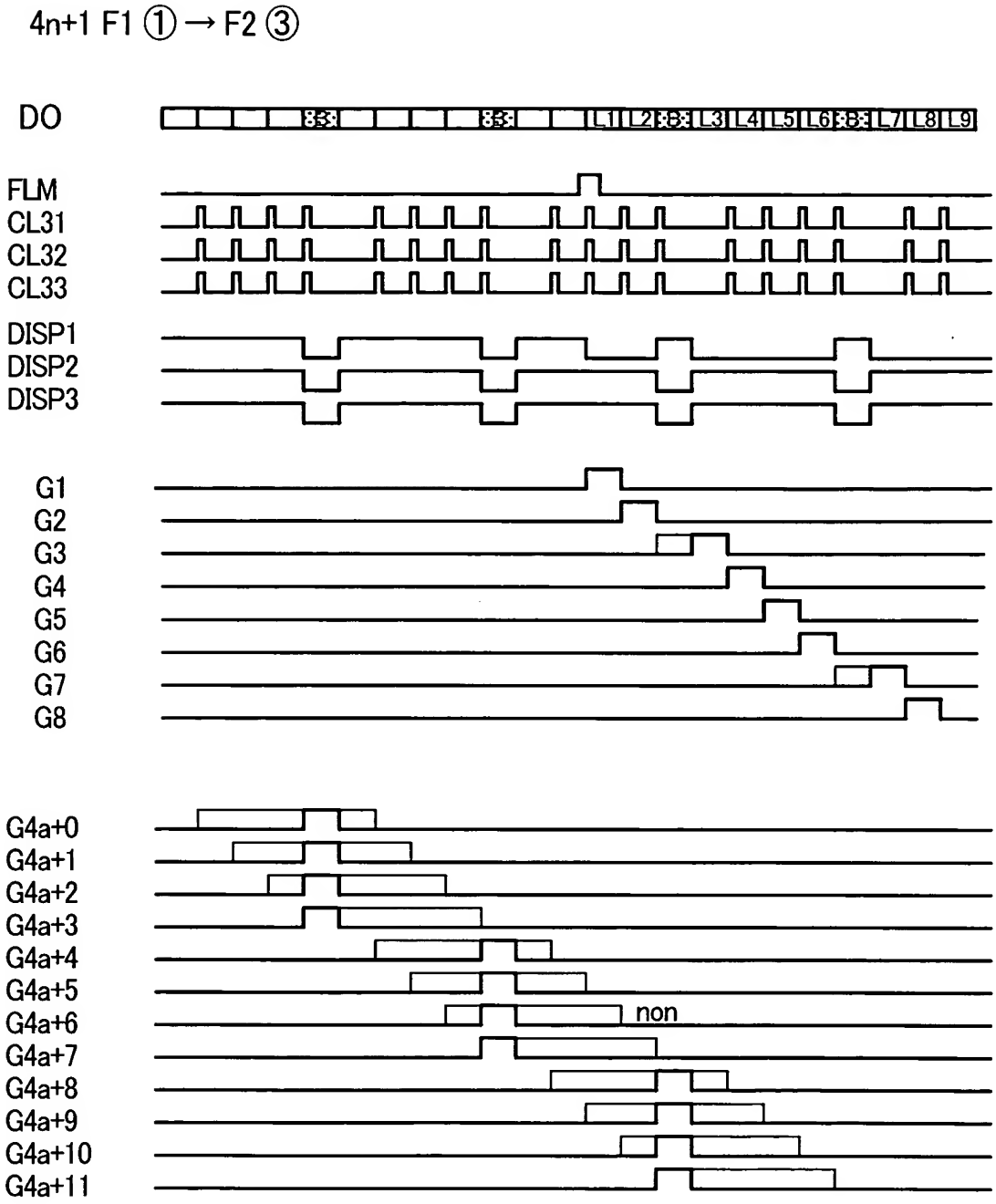

4n+1 F1 ① → F2 ③
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non

FIG. 17

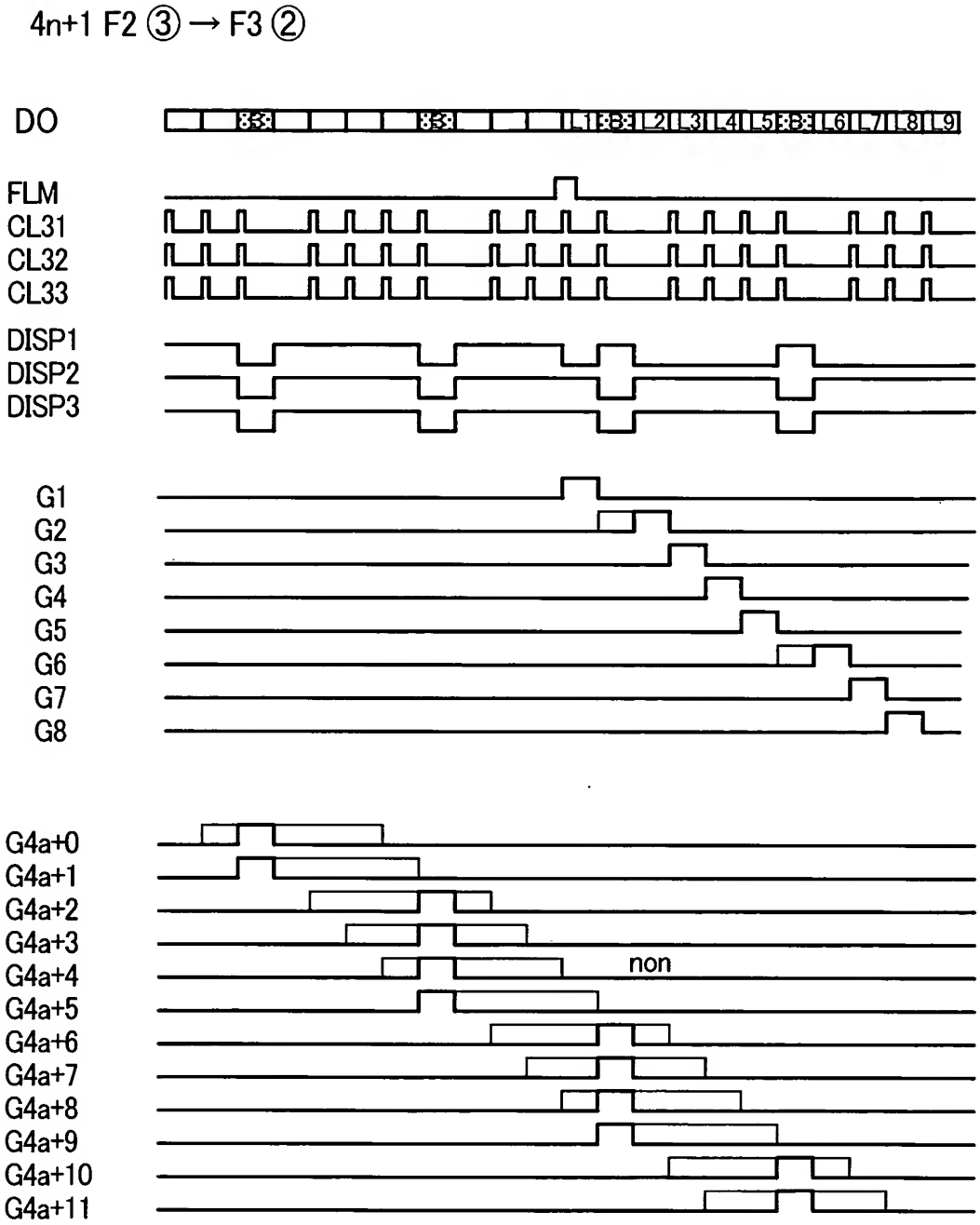

4n+1 F2 ③ → F3 ②
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non

FIG. 18

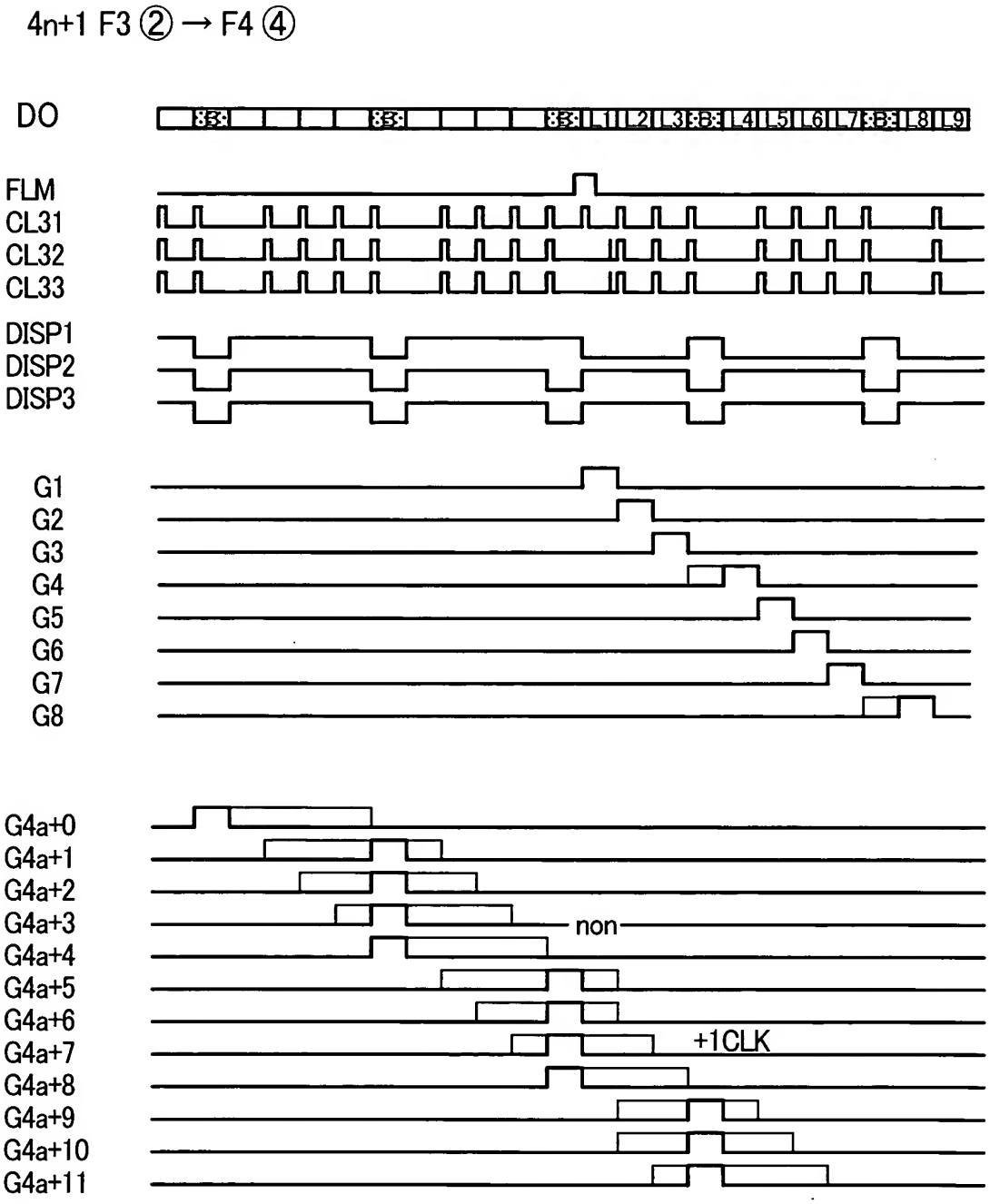

4n+1 F3 ② → F4 ④
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non
+1CLK

FIG. 19

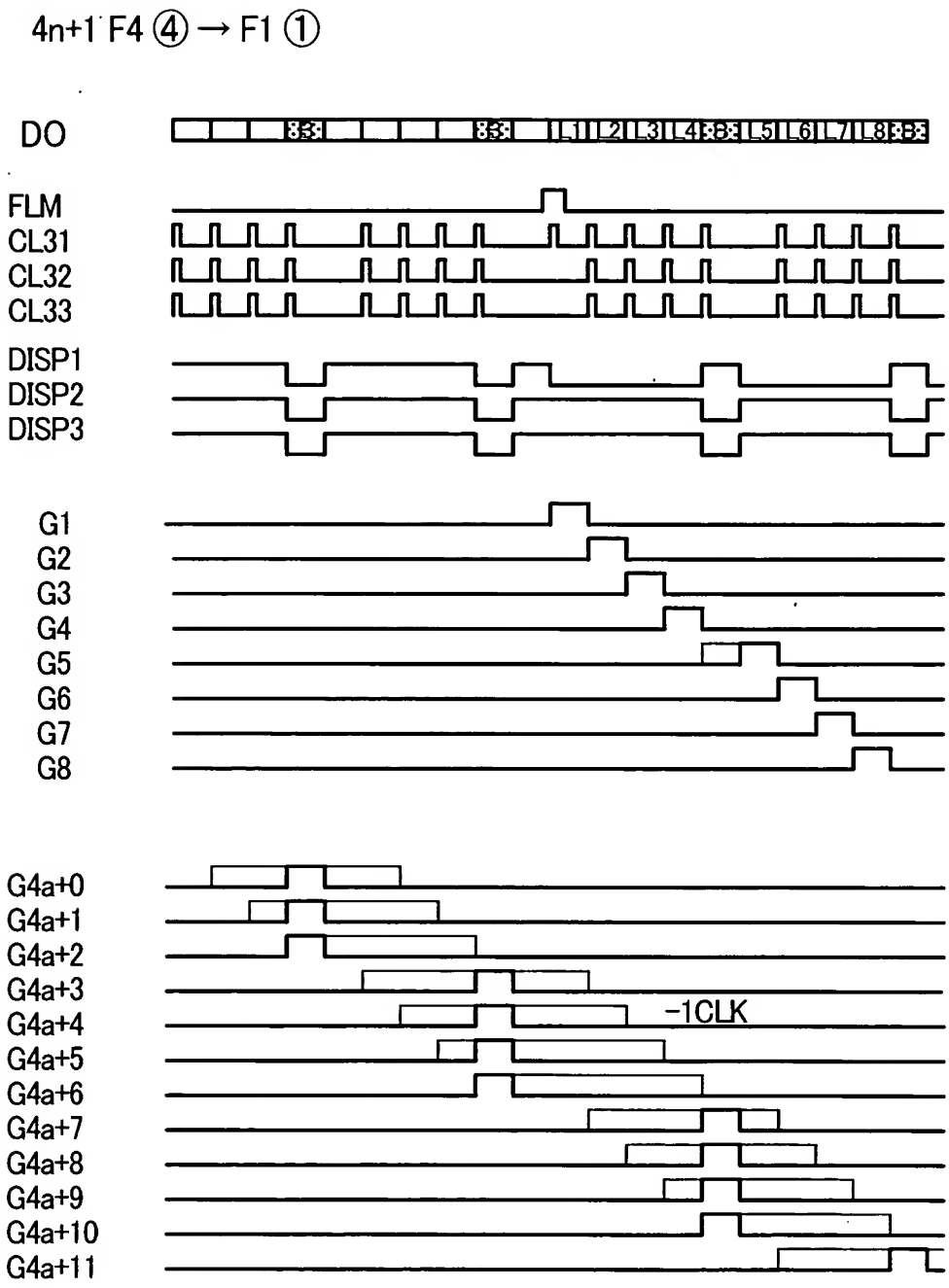

4n+1 F4 ④ → F1 ①
DO
L1
L2
L3
L4
L5
L6
L7
L8
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-1CLK

FIG. 20

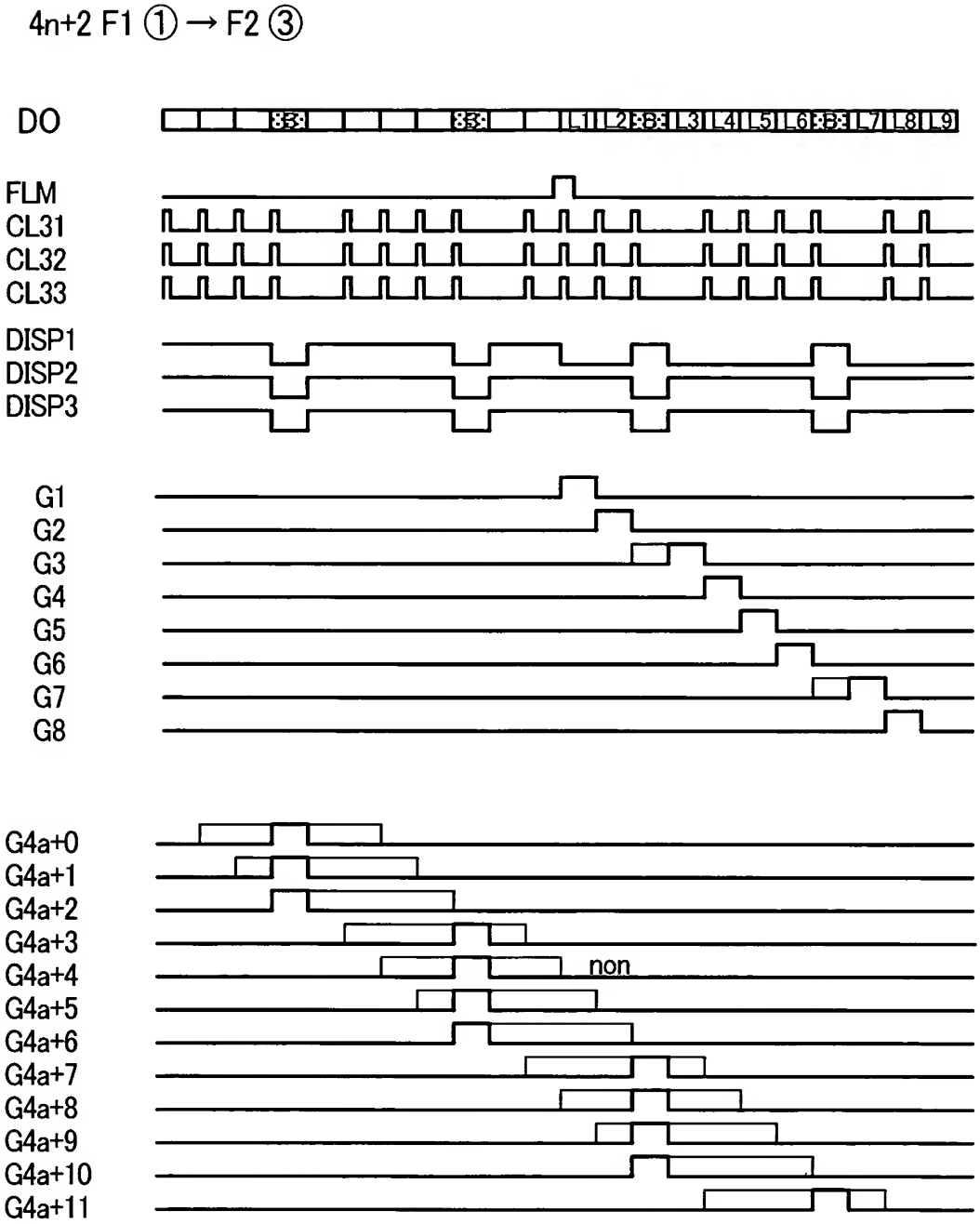

4n+2 F1 ① → F2 ③
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non

FIG. 21

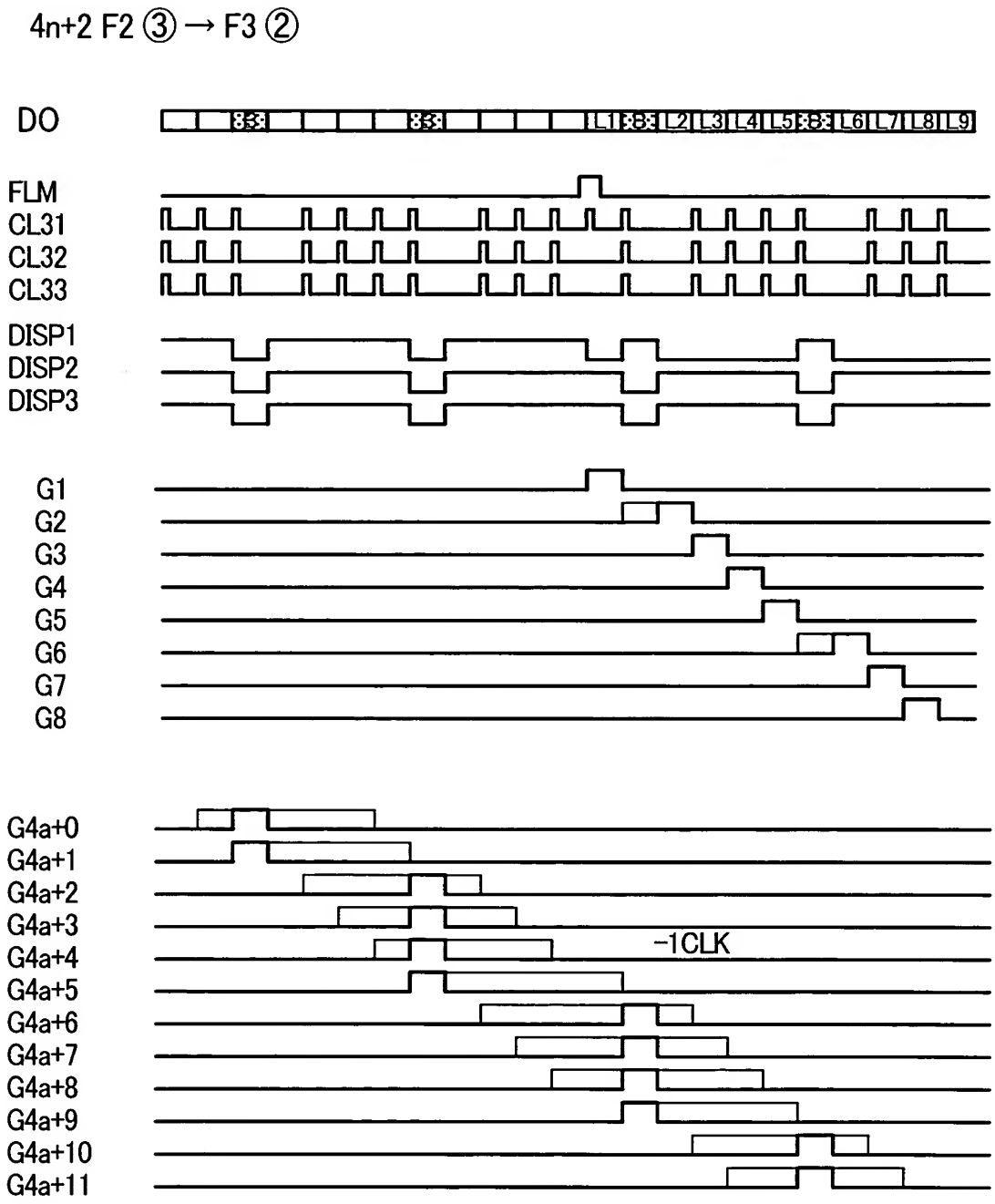

4n+2 F2 ③ → F3 ②
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-1CLK

FIG. 22

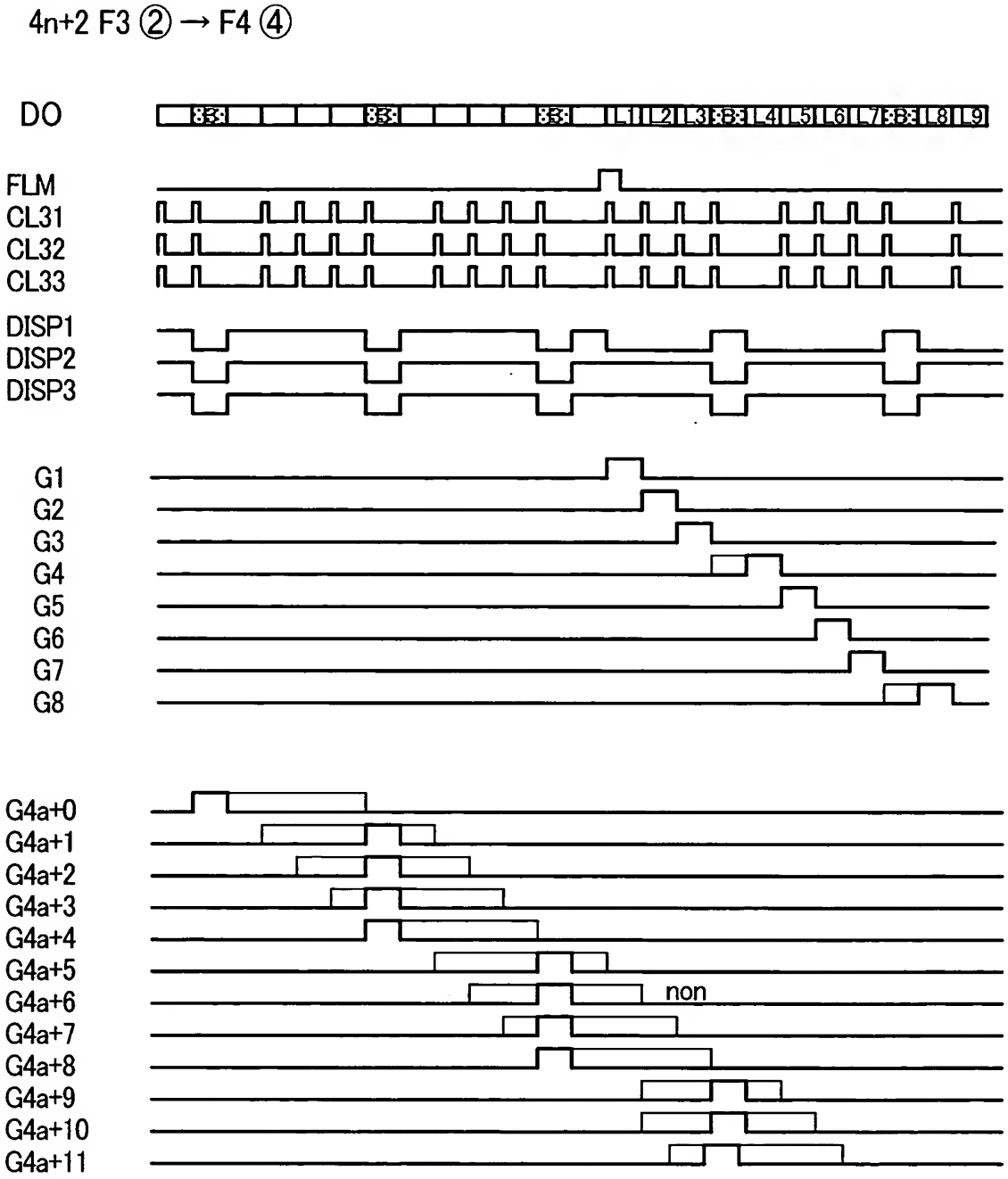

4n+2 F3 ② → F4 ④
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non

FIG. 23

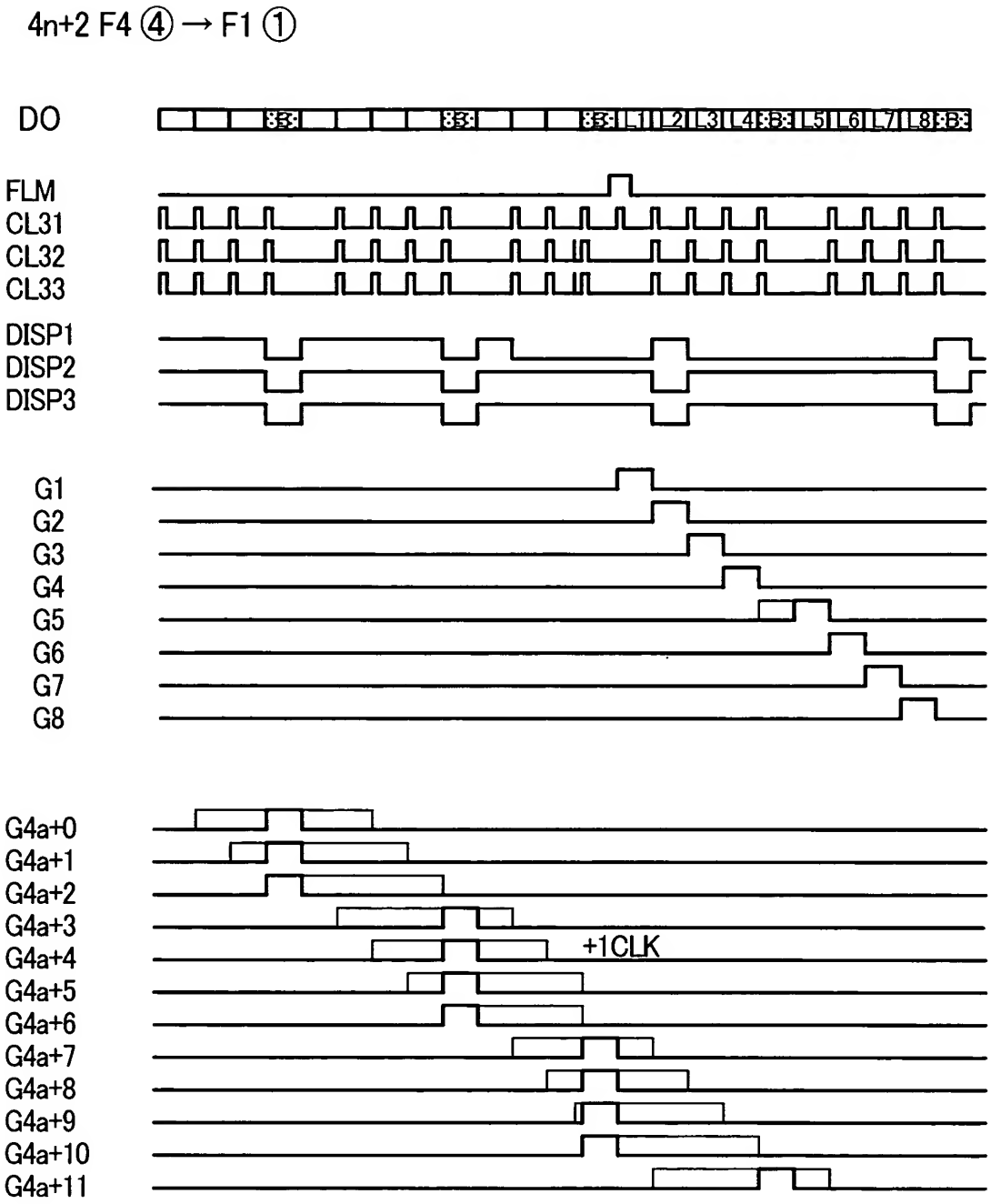

4n+2 F4 ④ → F1 ①
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
+1CLK

FIG. 24

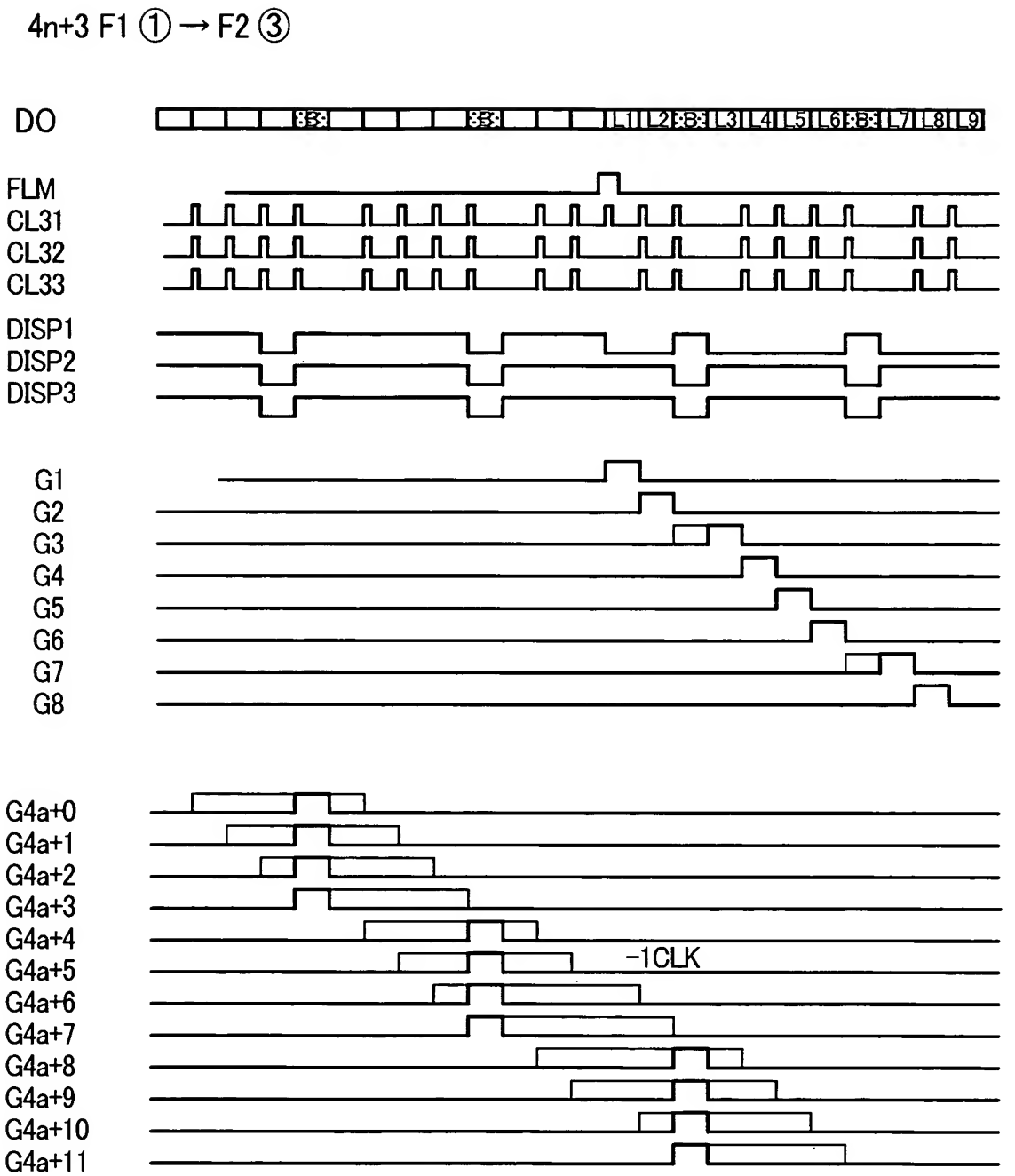

4n+3 F1 ① → F2 ③
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-1CLK

FIG. 25

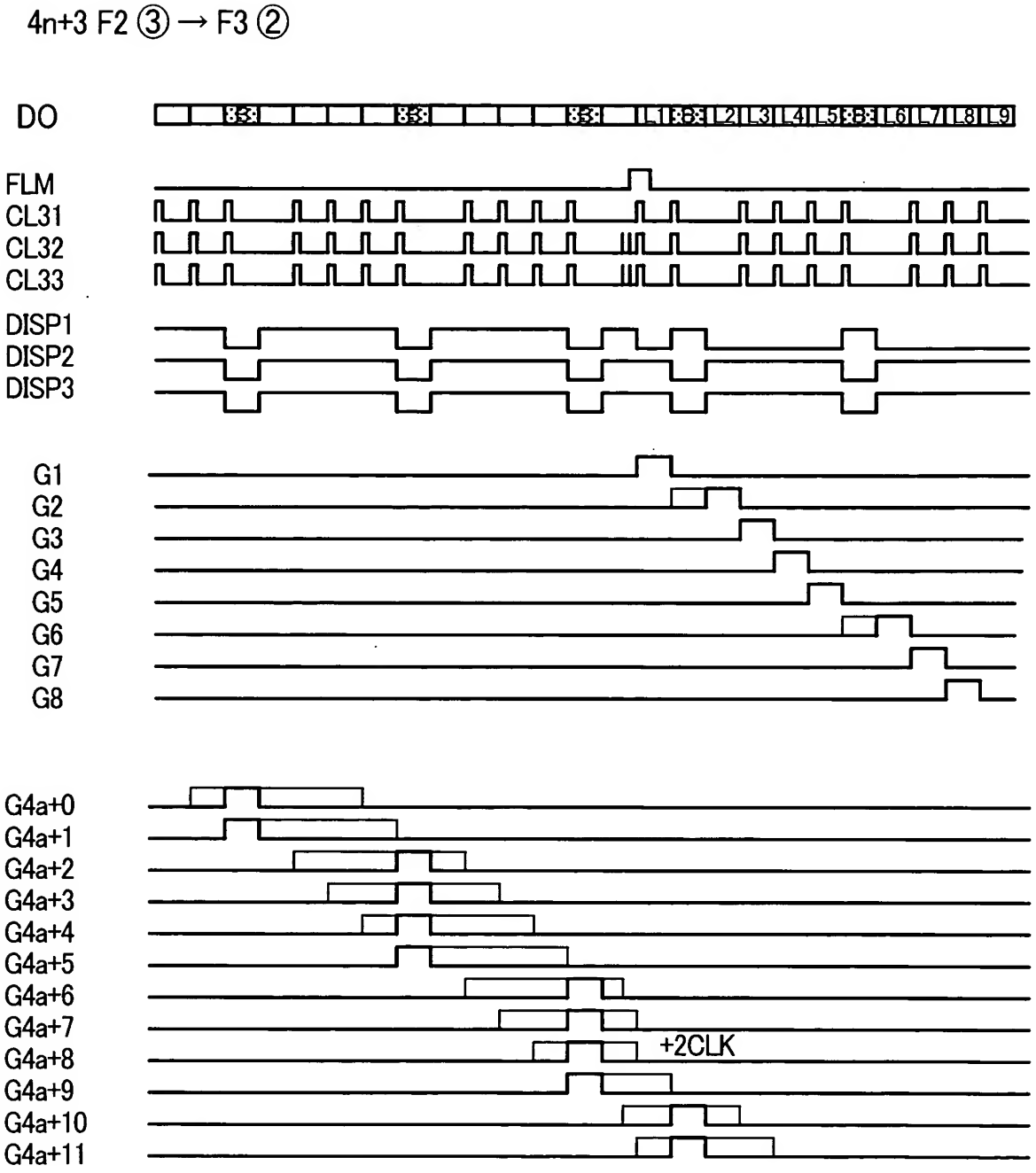

4n+3 F2 ③ → F3 ②
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
+2CLK

FIG. 26

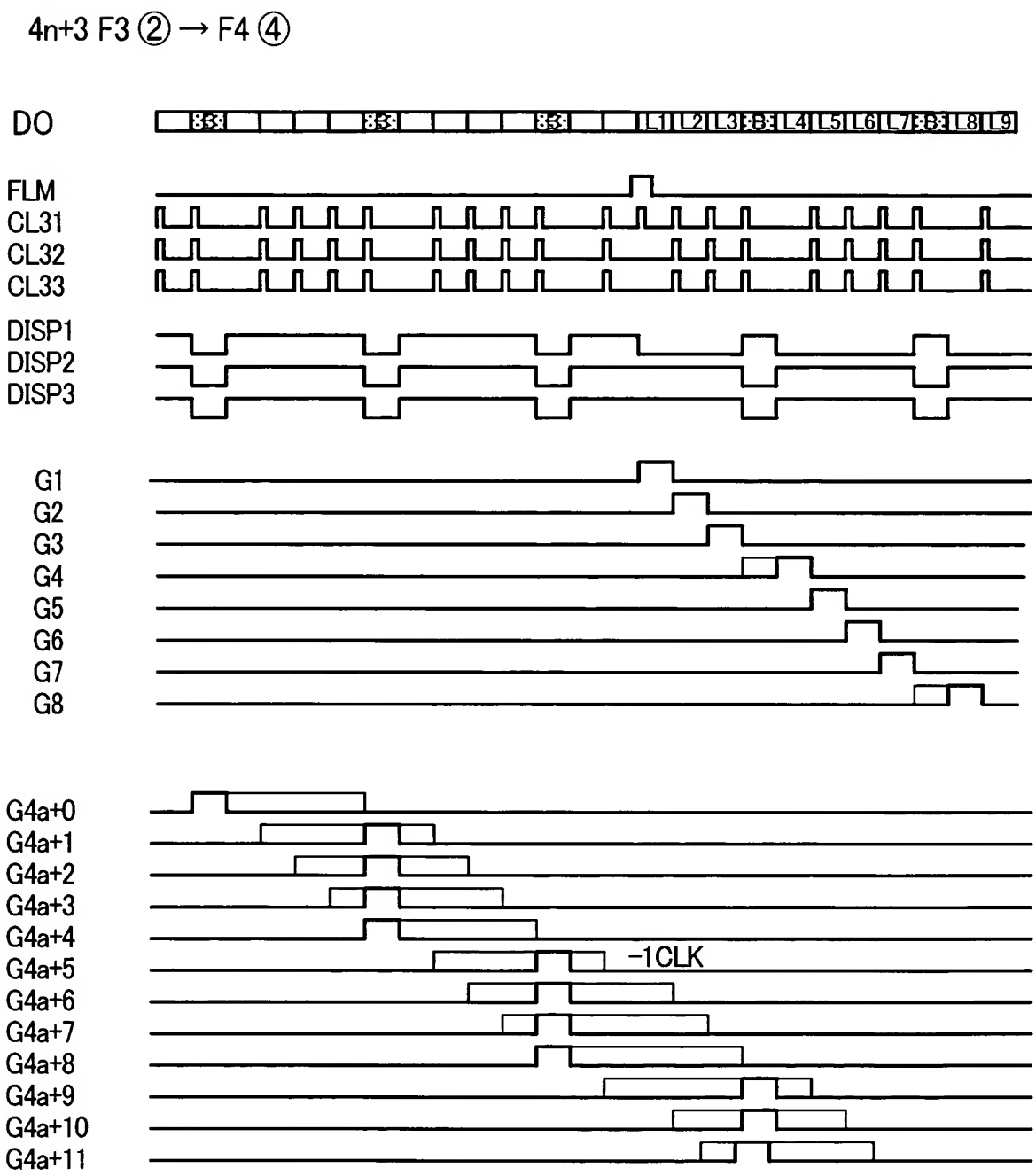

4n+3 F3 ② → F4 ④
DO
L1
L2
L3
L4
L5
L6
L7
L8
L9
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
-1CLK

FIG. 27

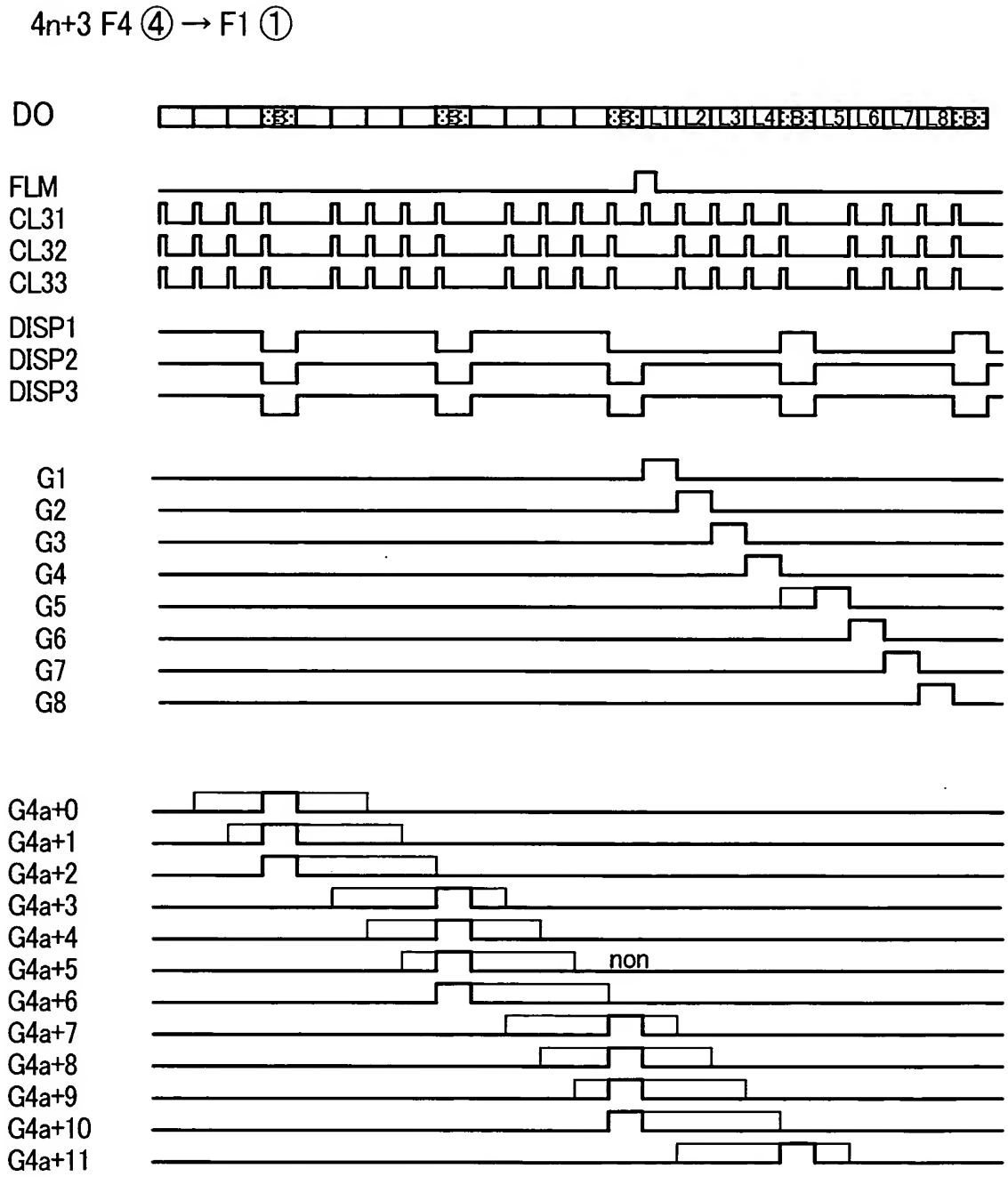

4n+3 F4 ④ → F1 ①
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
G8
G4a+0
G4a+1
G4a+2
G4a+3
G4a+4
G4a+5
G4a+6
G4a+7
G4a+8
G4a+9
G4a+10
G4a+11
non

FIG. 28

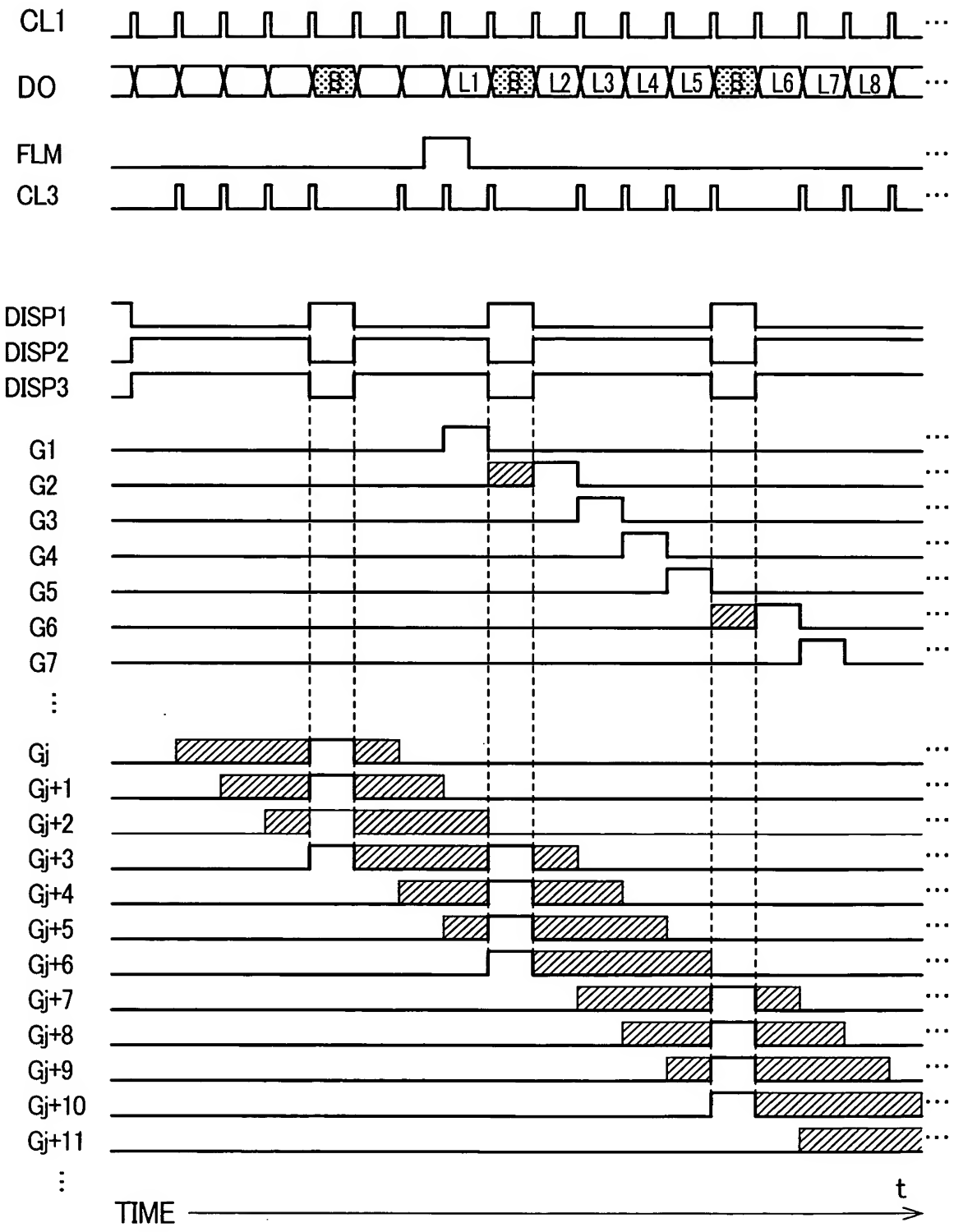

CL1
DO
FS
L1
FS
L2
L3
L4
L5
FS
L6
L7
L8
FLM
CL3
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
t
TIME

FIG. 29

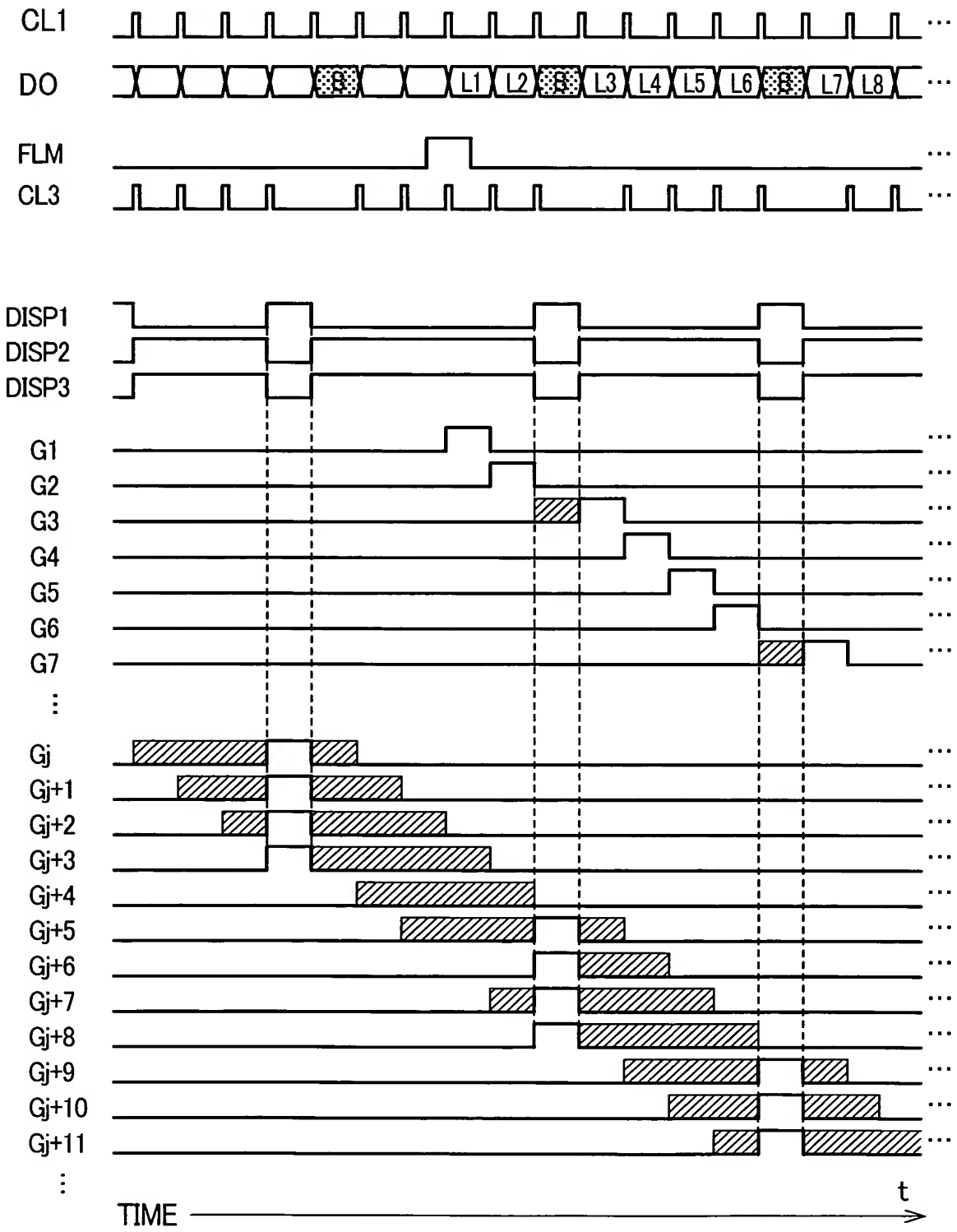

CL1
DO
B
L1
L2
B
L3
L4
L5
L6
B
L7
L8
FLM
CL3
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
t
TIME

FIG 30

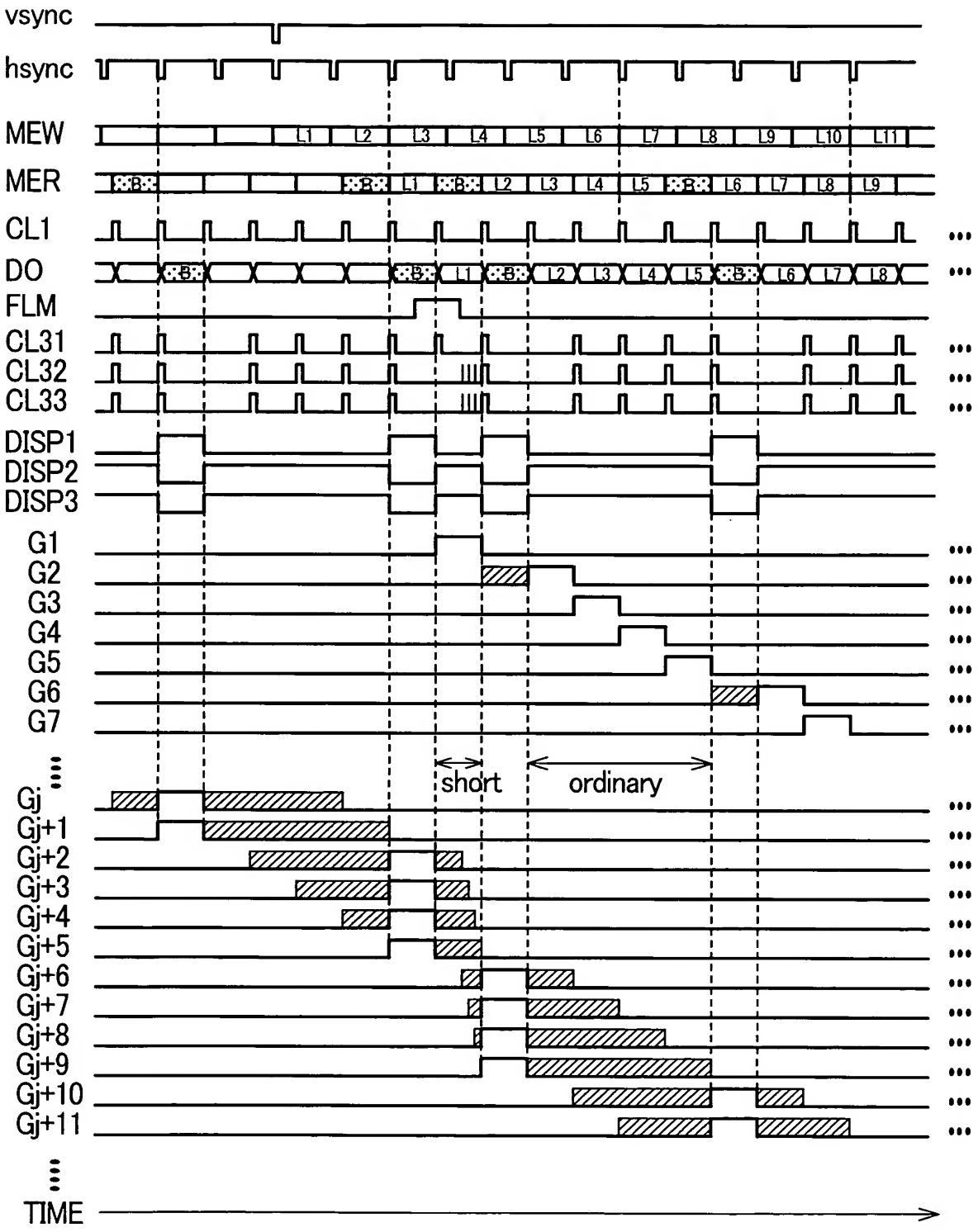

vsync
hsync
MEW
MER
CL1
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
short
ordinary
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
TIME

FIG. 31

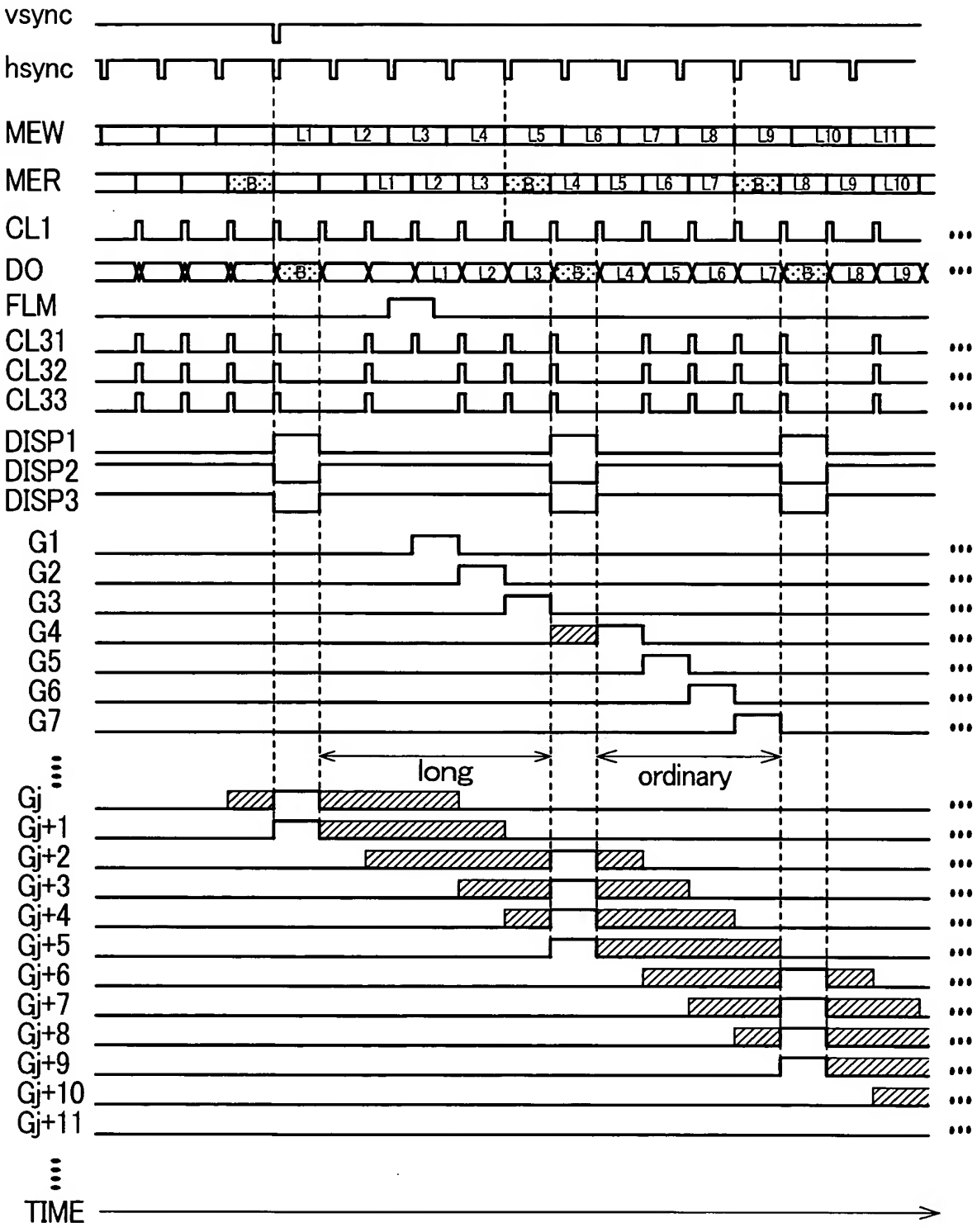

vsync
hsync
MEW
MER
CL1
DO
FLM
CL31
CL32
CL33
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
TIME
long
ordinary

FIG. 32

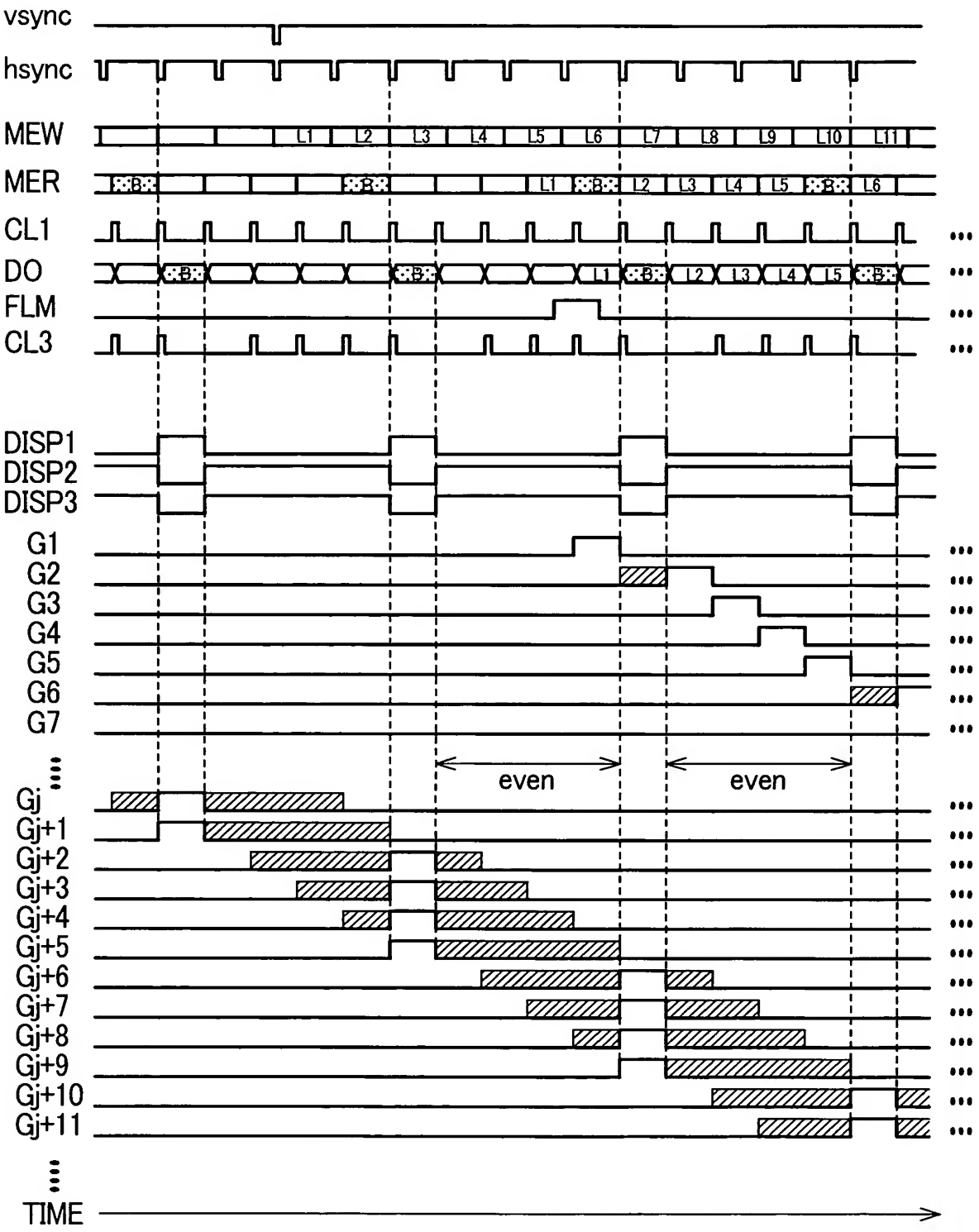

vsync
hsync
MEW
MER
CL1
DO
FLM
CL3
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
even
even
TIME

FIG. 33

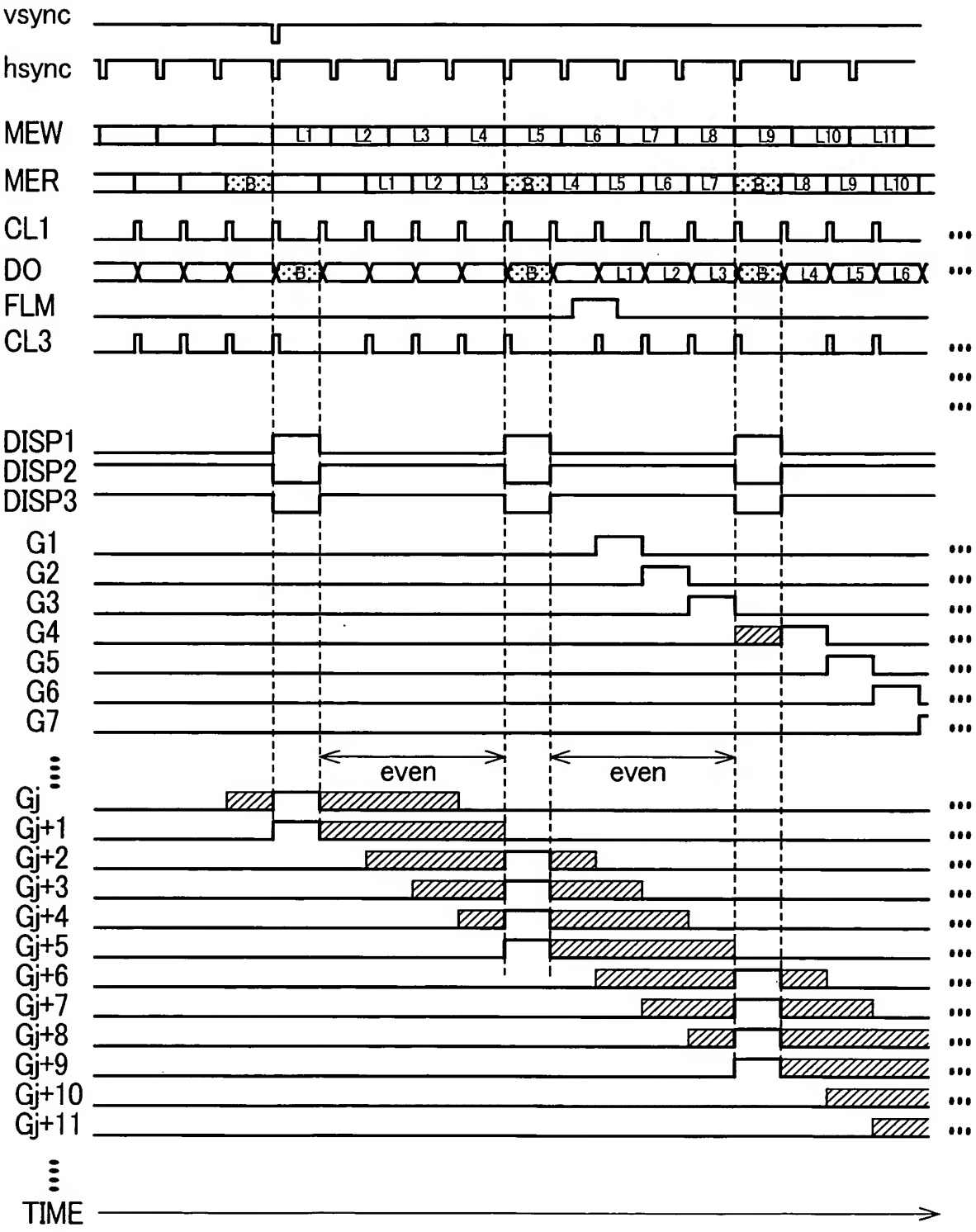

vsync
hsync
MEW
MER
CL1
DO
FLM
CL3
DISP1
DISP2
DISP3
G1
G2
G3
G4
G5
G6
G7
Gj
Gj+1
Gj+2
Gj+3
Gj+4
Gj+5
Gj+6
Gj+7
Gj+8
Gj+9
Gj+10
Gj+11
TIME
even
even
L1
L2
L3
L4
L5
L6
L7
L8
L9
L10
L11
B

FIG. 34

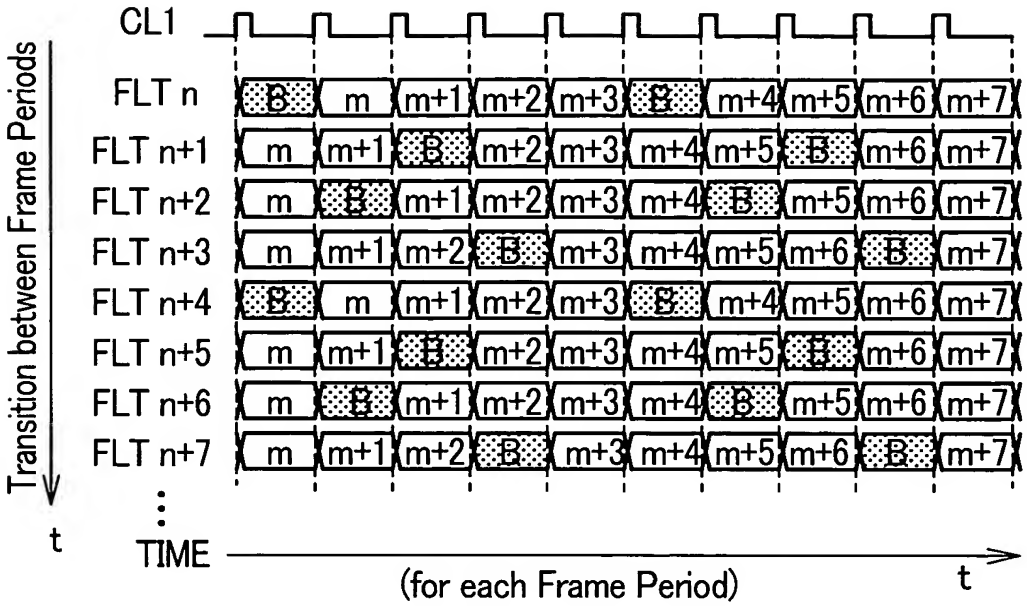
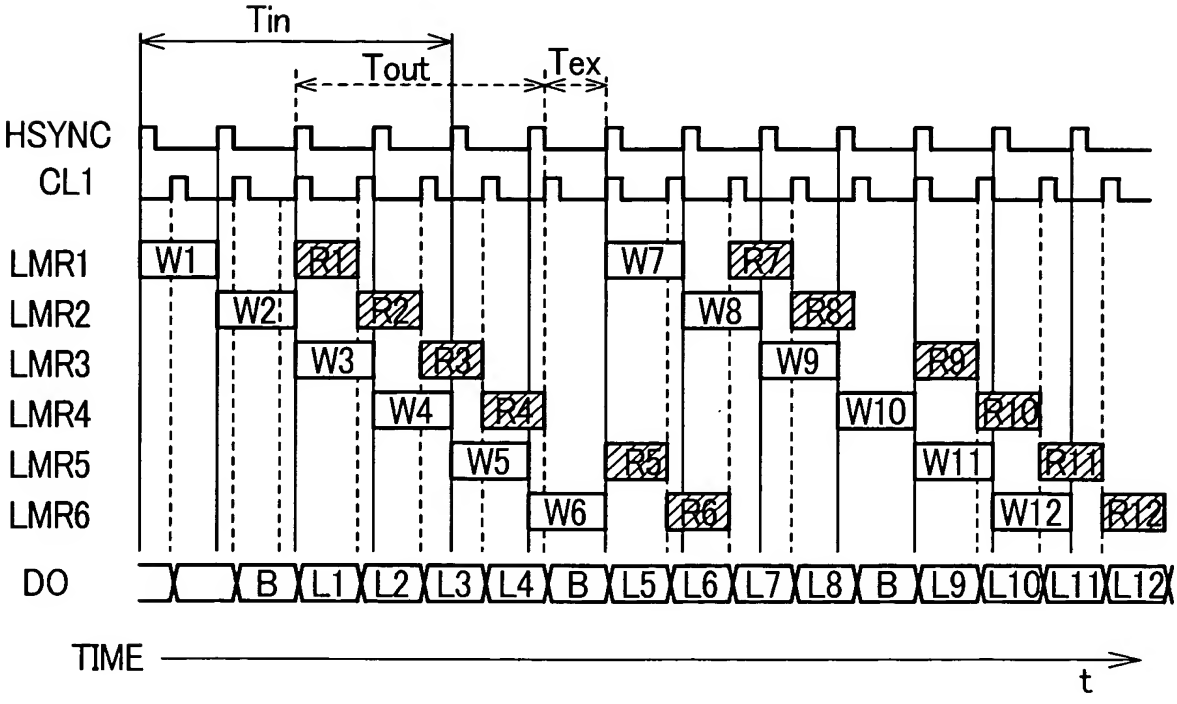

CL1
FLT n
FLT n+1
FLT n+2
FLT n+3
FLT n+4
FLT n+5
FLT n+6
FLT n+7
Transition between Frame Periods
t
TIME
(for each Frame Period)
t

FIG. 35


Tin
Tout
Tex
HSYNC
CL1
LMR1
LMR2
LMR3
LMR4
LMR5
LMR6
DO
TIME
t